

# *SYOSSET LANDFILL*

## *2016 ANNUAL POST-CLOSURE SUMMARY REPORT*

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Volume 2 of 2

Ground Water-Monitoring Program



**TOWN OF OYSTER BAY**

**DEPARTMENT OF PUBLIC WORKS  
SYOSSET, NEW YORK 11791**

May 2017



**LOCKWOOD  
KESSLER &  
BARTLETT, INC.**  
SYOSSET, NEW YORK 11791

**SYOSSET LANDFILL**

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SUMMARY REPORT**

**VOLUME 2 OF 2**

**GROUND WATER-MONITORING PROGRAM**

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GROUND WATER-MONITORING PROGRAM**

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## SECTION 1

### INTRODUCTION

The Town of Oyster Bay (Town) is required to perform ground-water monitoring at the Syosset Landfill (Landfill) during the post-closure period pursuant to two Records of Decision (RODs) from the United States Environmental Protection Agency (USEPA) Region II for the Landfill. These RODs are enforceable under a Consent Decree (CV-90-4183) entered into by Town and the USEPA.

The scope of the ground water-monitoring program is specified in Section 4 (Groundwater Monitoring System) of the Post-Closure Monitoring and Maintenance Operations Manual (O&M Manual), prepared by Lockwood, Kessler and Bartlett, Inc. (LKB), dated April 2003. The main purpose of the ground water-monitoring program is to track ground water-flow and quality conditions now that capping has been completed, to ensure that the Landfill continues to not pose a significant threat to public health and the environment via the ground-water pathway. The Landfill was removed from the National Priorities List on April 28, 2005.

The ground water-monitoring system for the Landfill is comprised of 20 wells. The locations of the wells are indicated in Figure 1. As shown in this figure, thirteen of the wells are located onsite, along the upgradient (south) boundary, within, and along the downgradient (north) boundary of the Landfill. The other eight wells are located offsite, downgradient of the Landfill, in three clusters. The on-site wells are screened in either the shallow, intermediate or deep zone of the Magothy Aquifer, which is the uppermost aquifer. The overlying Upper Glacial Formation is unsaturated beneath the Landfill, and all of the off-site downgradient wells are screened in the Magothy Aquifer.

The post-closure monitoring well network is comprised of the following 11 wells:

- SY-6 (Upgradient Well);
- SY-2R, SY-2D, SY-3, SY-3D and SY-3DD (On-Site Downgradient Wells); and
- PK-10S, PK-10I, PK-10D, RW-12I and RW-12D (Off-Site Downgradient Wells).

This Report presents the results of the 2016 annual ground water-monitoring round, which was performed on December 2<sup>nd</sup>, 6<sup>th</sup>, 7<sup>th</sup> and 13<sup>th</sup>. The scope of work for this monitoring round followed Section 4.0 of the O&M Manual, and incorporated the recommendations in the 2015 ground water-monitoring round report.

Sections 2.0 through 4.0 of this Report summarize the results of monitoring well inspections, water-level measurements and ground-water sampling, respectively. Section 5.0 compares the 2016 results to the previous annual post-closure monitoring results obtained since 2003, and to the 1988 OU-1 RI and 1993 OU-2 RI results. Conclusions and recommendations based on the results are provided in Section 6.0. Each section is supported by tables, figures and appendices, as appropriate.

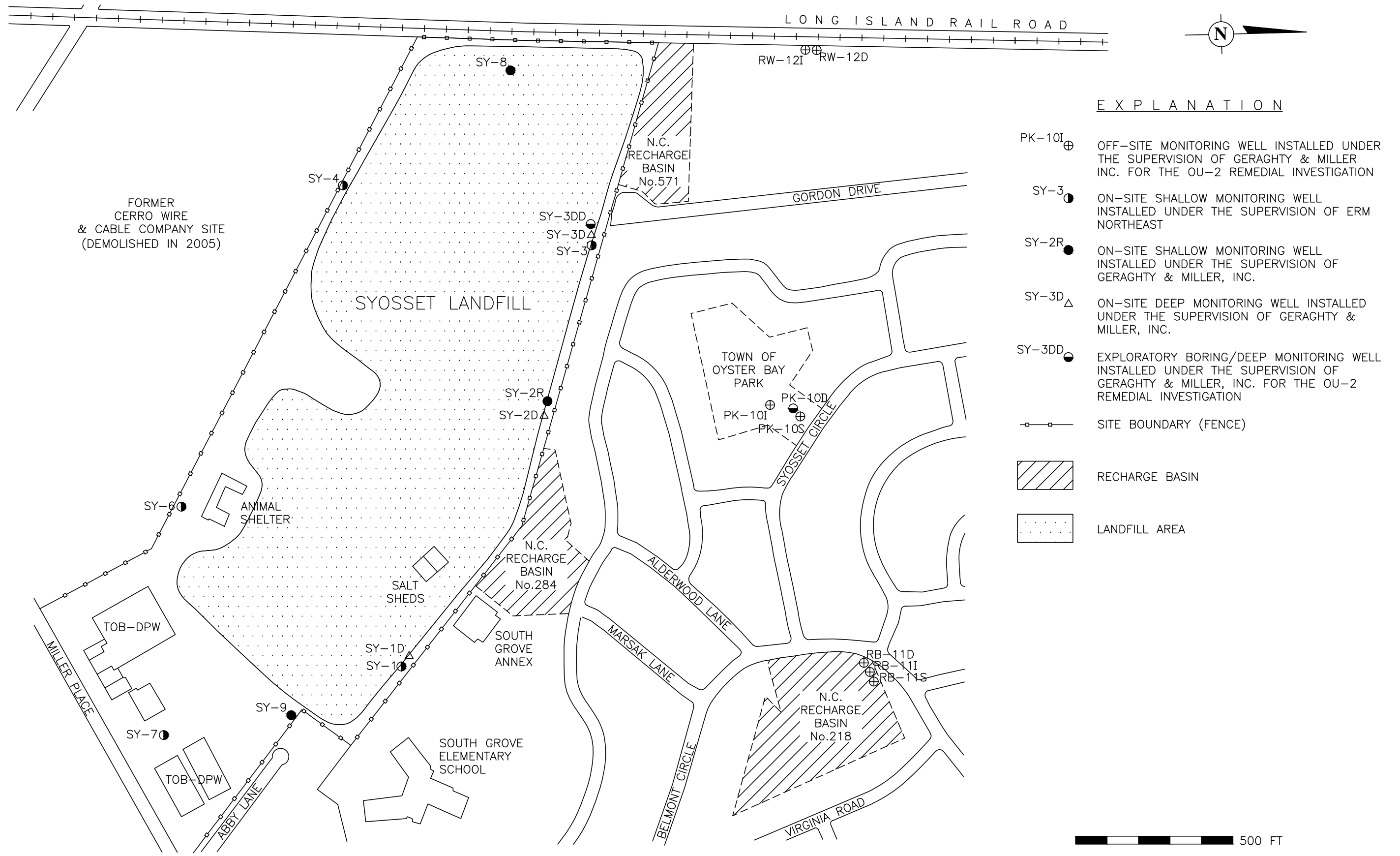


FIGURE 1

**GROUNDWATER MONITORING WELL LOCATION PLAN  
SYOSSET LANDFILL, SYOSSET, NY**



## **SECTION 2**

### **RESULTS OF TASK 1 – WELL INSPECTION, MODIFICATION AND/OR REPAIR**

Prior to performing the 2016 ground water-monitoring round, the 20 existing monitoring wells were located and inspected. All appeared to be in usable condition, and no significant modifications or repairs were required to the 11 wells that are monitored for ground-water quality. New locks and grip-plugs were installed on certain wells at the time of inspection. Well SY-9 was found to be dry, which is consistent with the fact that the water-table elevation site-wide had decreased by approximately four feet since the 2015 monitoring round. Water levels could not be taken in Wells RB-11S and RB-11I because of interference from their 3-inch-diameter dedicated submersible pumps and the lower water levels. The water-level elevations in these wells were estimated based on the results for Well RB-11D. The inspection information for each existing ground water-monitoring well was recorded on a Well Inspection Checklist form, copies of which are presented in Appendix A.

## SECTION 3

### RESULTS OF TASK 2 – WATER-LEVEL MEASUREMENT

The 2016 synoptic water-level round was performed on December 2<sup>nd</sup>. Measurements were made to the nearest 0.01-feet utilizing an electronic water-level meter. Water-level measurements were obtained from 17 of the 20 site monitoring wells. Three wells could not be measured due to the significantly lower water levels in 2016. Specifically, Well SY-9 was dry, and in Wells RB-11S and RB-11I the dedicated pumps prevented the water-level meter probe from reaching the water.

The 2016 water-level data are summarized in Table 1. Monitoring well construction details are provided in Table 2. Ground water-flow maps for the shallow, intermediate, and deep zones of the Magothy Aquifer in the vicinity of the Landfill, based on the 2016 water-level measurements, are provided in Figures 2, 3 and 4, respectively.

#### 3.1 Horizontal Ground Water-Flow Directions and Gradients

##### 3.1.1 *Shallow Zone*

As shown in Figure 2, the overall horizontal ground water-flow direction in the shallow zone of the Magothy Aquifer beneath the Landfill is from south to north. Downgradient of the Landfill, horizontal ground water-flow directions converge in the vicinity of Well Cluster PK-10. Moreover, based on the ground water-flow directions shown in Figure 2, Well Cluster RW-12 appears to be located sidegradient to, rather than directly downgradient of, the Landfill.

The converging ground water-flow pattern observed in the shallow zone of the Magothy Aquifer downgradient of the Landfill is attributed to the influence of a buried glacial valley that begins beneath the western half of the Landfill and trends to the north-northeast. The Upper Glacial Formation is unconfined and more permeable than the Magothy Formation, which is locally semi-confined. Therefore, in the vicinity of the buried glacial valley, ground water tends to flow out of the section of Magothy Formation in contact with the buried glacial valley and into the Upper Glacial Formation, resulting in the converging flow pattern observed. The buried glacial valley is discussed in more detail in Section 3.3 below.

The horizontal hydraulic gradient for the shallow zone of the Magothy Aquifer, calculated by dividing the difference in water-level elevation between Well SY-6 and Well PK-10S in 2016 (1.58 feet) by the distance between the two wells (1,975 feet), is 0.0008. This gradient similar to the gradients observed from 2013 through 2015, and during the pre-2011 monitoring rounds, and therefore appears to represent typical conditions. In contrast, in 2011 and 2012, lower horizontal hydraulic gradients were observed in this aquifer zone. They were attributed to the unusually rapid rises in the water-table elevation in late 2011 and late 2012 due to the above-normal infiltration from the hurricanes and nor'easters that occurred earlier in these years.

**Table 1**  
**Summary of Water-Level Results**  
**Syosset Landfill 2016 Annual Post-Closure Ground Water-Monitoring Report**

Well No.	MP Elev.	MP Description	WL Depth	WL Elev.	Vertical Gradient (ft/ft)
<b>On-Site Wells:</b>					
SY-1	198.48	Top of 2-inch steel casing.	119.74	78.74	-0.0009 (SY-1 / SY-1D)
SY-1D	197.02	Top of 4-inch PVC cap.	118.23	78.79	
SY-2R	190.86	Top of 4-inch PVC casing.	112.56	78.30	0.0021 (SY-2R / SY-2D)
SY-2D	190.91	Top of 3-inch PVC casing.	112.77	78.14	
SY-3	193.96	Top of 2-inch steel casing.	115.60	78.36	0.0081 (SY-3 / SY-3D)
SY-3D	194.47	Top of 3-inch PVC casing.	116.55	77.92	0.0008 (SY-3D / SY-3DD)
SY-3DD	193.95	Top of 2-inch PVC casing.	116.29	77.66	
SY-4	192.39	Top of 2-inch steel casing.	113.08	79.31	
SY-6	186.94	Top of 2-inch steel casing.	107.59	79.35	
SY-7	197.46	Top of 2-inch steel casing.	117.58	79.88	
SY-8	197.94	Top of 4-inch PVC cap.	119.34	78.60	
SY-9	202.41	Top of 4-inch PVC casing.	DRY	<79.50*	
<b>Off-Site Wells:</b>					
PK-10S	188.73	Top of 4-inch PVC casing.	110.96	77.77	0.0022 (PK-10S/PK-10I)
PK-10I	187.10	Top of 4-inch PVC casing.	109.79	77.31	-0.0001 (PK-10I/PK-10D)
PK-10D	188.25	Top of 4-inch PVC casing.	110.93	77.32	
RW-12I	197.32	Top of 4-inch PVC casing.	120.28	77.04	0.0005 (RW-12I/RW-12D)
RW-12D	197.29	Top of 4-inch PVC casing.	120.32	76.97	
RB-11S	189.91	Top of 4-inch PVC cap.	NM	NA	NA (RB-11S/RB-11I)
RB-11I	190.32	Top of 4-inch PVC cap.	NM	NA	NA (RB-11I/RB-11D)
RB-11D	190.60	Top of 4-inch PVC cap.	113.13	77.47	

**Notes:**

Water-level data collected on December 2, 2016.

MP - Measuring Point.

NM - Water level not measured. (Dedicated pumps prevented meter probe from reaching water.)

NA - Not available.

\* Approximate elevation of bottom of well screen.

Table 2

Summary of Construction Details for Monitoring Wells Installed at and Near the Syosset Landfill  
 Syosset Landfill 2014 Annual Post-Closure Ground Water-Monitoring Report  
 (Reference: OU-2 RI Report, 1993)

Well Designation	Completion Date	Well Diameter (inches)	Total Depth (feet below land surface)	Screen Setting (feet below land surface)	Interval Gravel Packed (feet below land surface)	Interval Sealed With Bentonite Pellets (feet below land surface)	Interval Sealed With Bentonite Slurry/Volclay (feet below land surface)	Height of Measuring Point (a) (relative to land surface)	Elevation of Measuring Point (b) (feet above mean sea level)	Well Casing and Screen Material
SY-1 (c)	10/19/82	2	135	125 - 135 (d)	35 - 135 (d)	34 - 35	8 - 34 (e)	-0.15	194.52	Black steel
SY-1D	2/2/88	4	218	182 - 192	179 - 218	177 - 179	2 - 177	+2.31	197.36	PVC
SY-2R	2/12/88	4	150	115 - 125	112 - 150	110 - 112	2 - 110	+1.95	187.12	PVC
SY-2D	2/9/88	3	215	190 - 200	187 - 215	185 - 187	2 - 185	+2.18	186.33	PVC
SY-3 (c)	10/20/82	2	145	135 - 145	47 - 145 (d)	45 - 47	4 - 45 (e)	-0.50	191.38	Black steel
SY-3D	2/25/88	3	240	189 - 199	184 - 240	181 - 184	2 - 181	+2.45	194.74	PVC
SY-3DD	12/9/92	2	640	630 - 640	617 - 640	612 - 617 (f)	2 - 612	0	194.23	PVC, stainless steel
SY-4	10/20/82	2	153	143 - 153 (d)	57 - 153 (d)	54 - 57	4 - 54 (e)	-0.20	193.32	Black steel
SY-5 (c) (h)	10/20/82	2.5	135	125 - 135 (d)	46 - 135 (d)	44 - 46	5 - 44 (e)	+4.20	188.07	Galvanized steel
SY-6 (c)	10/19/82	2	145	135 - 145 (d)	31 - 145 (d)	28 - 31	5 - 28 (e)	-0.10	185.92	Black steel
SY-6D	3/9/88	4	215	195 - 205	192 - 215	190 - 192	3 - 192	-0.30	185.60	PVC
SY-7 (c)	10/21/82	2	145	135 - 145 (d)	52 - 145 (d)	49 - 52	5 - 49 (e)	-0.25	197.46	Black steel
SY-8	12/19/87	4	142	127 - 137	125 - 142	122 - 125	2 - 122	+2.25	195.84	PVC
SY-9	1/23/88	4	140	110 - 120	107 - 140	105 - 107	2 - 105	-0.70	199.41	PVC
W-3	11/10/87	2	120	105 - 115	102 - 120	100 - 102	2 - 100	+2.63	190.61	PVC
W-4 (h)	11/18/87	2	120	104 - 114	102 - 120	100 - 102	2 - 100	+2.56	192.82	PVC
PK-10S	3/25/93	4	149	139 - 149	5 - 149	(i)	(i)	-0.40	188.70	PVC, stainless steel
PK-10I	4/14/93	4	362	352 - 362	346.5 - 363	341.5 - 346.5 (f)	2 - 341.5 (g)	0	187.62	PVC, stainless steel
PK-10D	12/31/92	4	499	489 - 499	477 - 500	472 - 477 (f)	2 - 472 (g)	0	188.23	PVC, stainless steel
RB-11S	8/26/93	4	143	133 - 143	120 - 144	115 - 120 (f)	2 - 115 (g)	0	189.91	PVC, stainless steel
RB-11I	8/19/93	4	358.5	348.5 - 358.5	339 - 359	333 - 339 (f)	2 - 333 (g)	0	190.32	PVC, stainless steel
RB-11D	8/9/93	4	503	493 - 503	487 - 509	480 - 487 (f)	2 - 480 (g)	0	190.60	PVC, stainless steel
RW-12I	10/7/93	4	360	350 - 360	338 - 364	330 - 338 (f)	2 - 330 (g)	0	197.76	PVC, stainless steel
RW-12D	9/27/93	4	500	490 - 500	482 - 508	475 - 482 (f)	2 - 482 (g)	0	197.72	PVC, stainless steel

(a) The measuring point of each well is the top of the well casing.

(b) Survey performed to U.S. Geological Survey (USGS) datum.

(c) Well installed during the ERM-Northeast site investigation.

(d) It appears that this interval consists of formation collapse.

(e) Information not available as to whether grout or backfill (drill cuttings) was used to fill the annular space in this interval.

(f) #00 Sand used above J. Morie, Co. No. 1 Sand.

(g) Volclay grout sealant used (composed of 100 percent bentonite).

(h) Destroyed.

(i) Well PK-10S was installed in the initial PK-10I borehole, which had collapsed at 328 feet due to unstable formation;

PK-10S was constructed with the gravel pack extending to within 5 feet of land surface to allow for the

gravel pack to stabilize before a permanent seal was installed. PK-10S is currently sealed at the land surface with a

steel plate and rubber gasket. Gravel can be monitored/added through a 1-inch diameter access port.

PVC

Polyvinyl chloride.

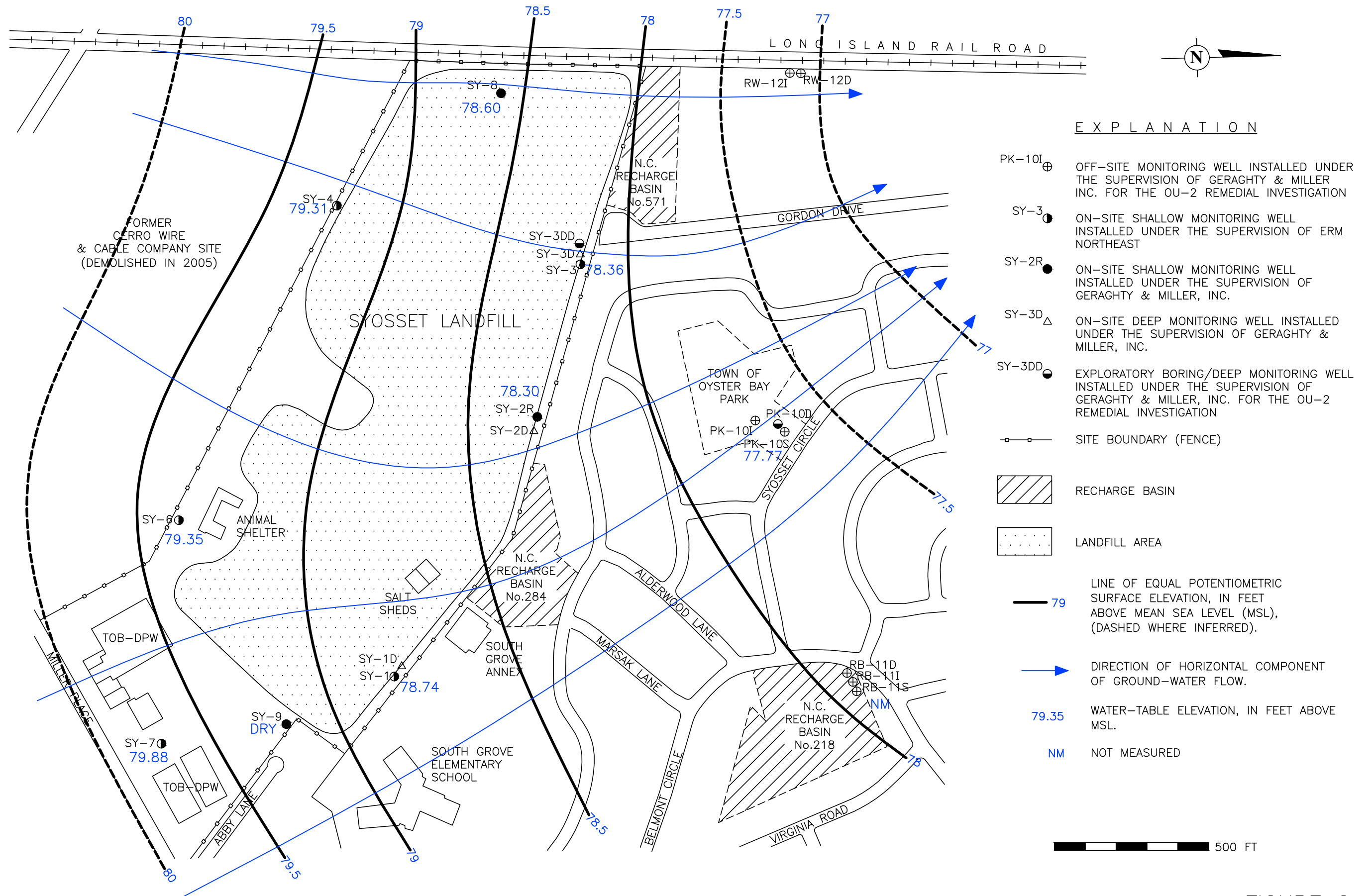
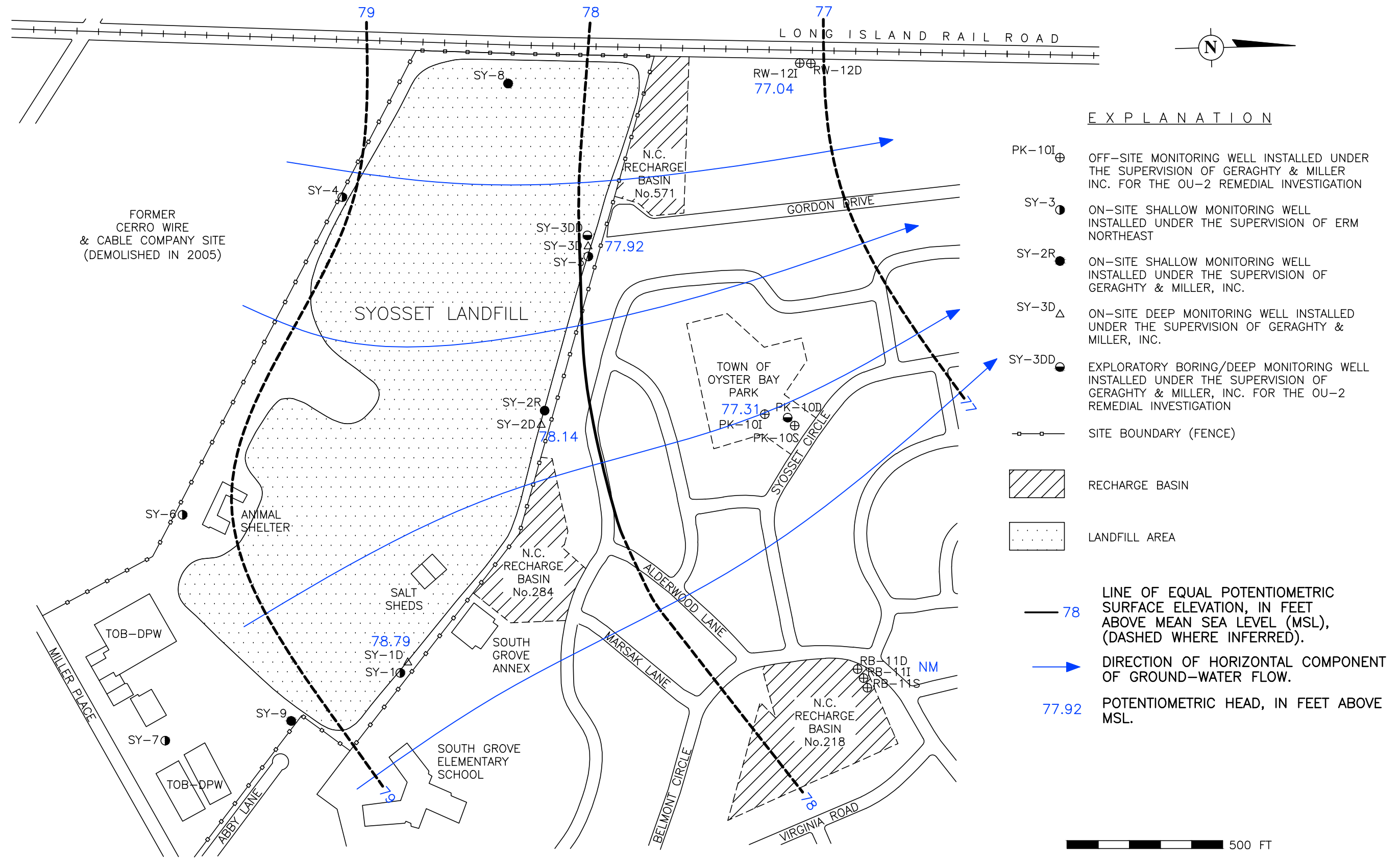


FIGURE 2

POTENTIOMETRIC SURFACE OF THE SHALLOW ZONE OF THE MAGOTHY AQUIFER ON DECEMBER 2, 2016  
 SYOSSET LANDFILL, SYOSSET, NY





- EXPLANATION**
- PK-10I ⊕ OFF-SITE MONITORING WELL INSTALLED UNDER THE SUPERVISION OF GERAGHTY & MILLER INC. FOR THE OU-2 REMEDIAL INVESTIGATION
  - SY-3 ● ON-SITE SHALLOW MONITORING WELL INSTALLED UNDER THE SUPERVISION OF ERM NORTHEAST
  - SY-2R ● ON-SITE SHALLOW MONITORING WELL INSTALLED UNDER THE SUPERVISION OF GERAGHTY & MILLER, INC.
  - SY-3D Δ ON-SITE DEEP MONITORING WELL INSTALLED UNDER THE SUPERVISION OF GERAGHTY & MILLER, INC.
  - SY-3DD ● EXPLORATORY BORING/DEEP MONITORING WELL INSTALLED UNDER THE SUPERVISION OF GERAGHTY & MILLER, INC. FOR THE OU-2 REMEDIAL INVESTIGATION
  - SITE BOUNDARY (FENCE)
  - [Hatched Box] RECHARGE BASIN
  - [Dotted Box] LANDFILL AREA
  - 78 LINE OF EQUAL POTENTIOMETRIC SURFACE ELEVATION, IN FEET ABOVE MEAN SEA LEVEL (MSL), (DASHED WHERE INFERRED).
  - DIRECTION OF HORIZONTAL COMPONENT OF GROUND-WATER FLOW.
  - 77.92 POTENTIOMETRIC HEAD, IN FEET ABOVE MSL.

500 FT



**POTENTIOMETRIC SURFACE OF THE INTERMEDIATE ZONE OF THE MAGOTHY AQUIFER ON DECEMBER 2, 2016  
SYOSSET LANDFILL, SYOSSET, NY**

FIGURE 3



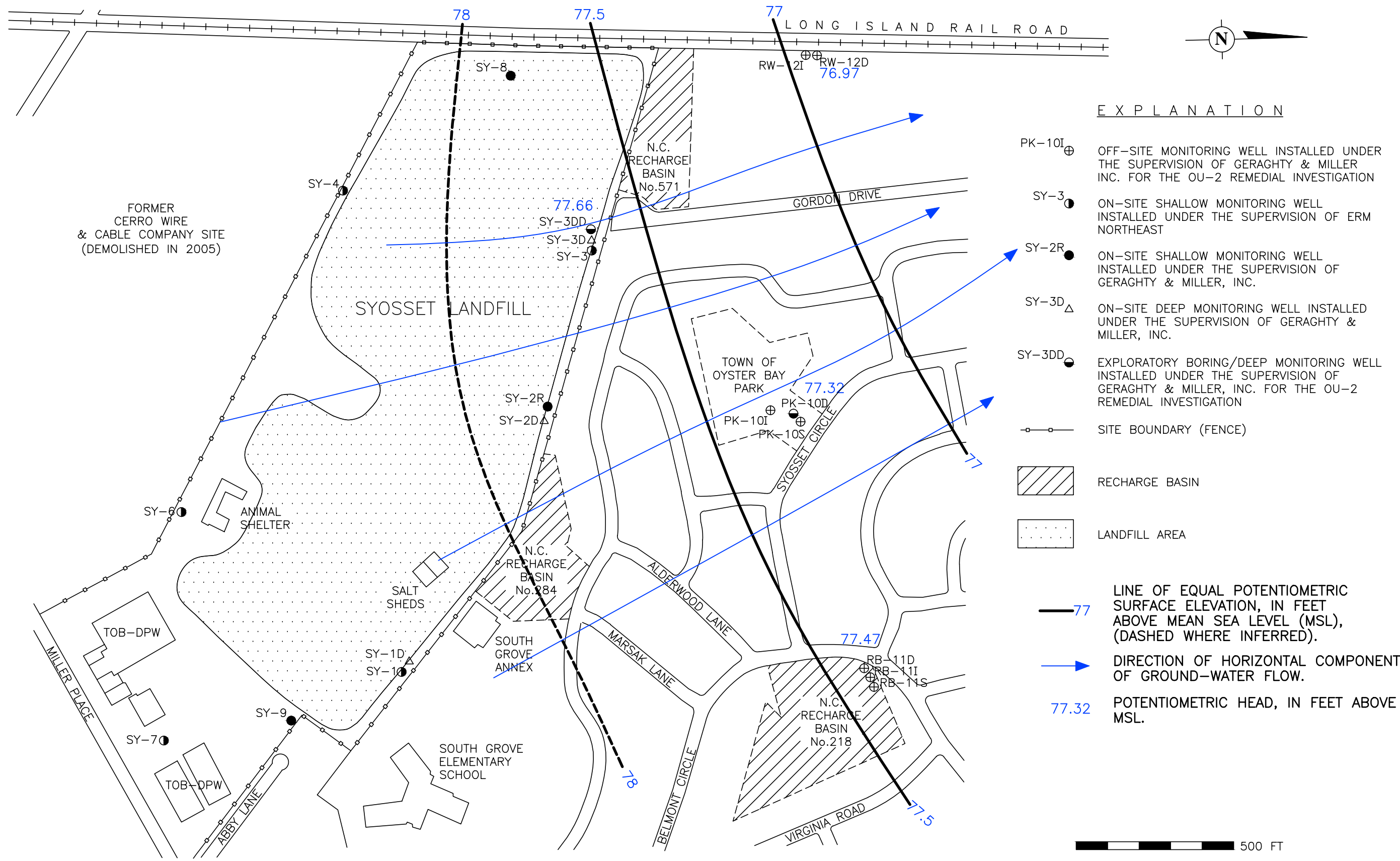


FIGURE 4  
**DEEP POTENTIOMETRIC SURFACE ZONE OF THE MAGOTHY AQUIFER ON DECEMBER 2, 2016  
 SYOSSET LANDFILL, SYOSSET, NY**

### 3.1.2 Intermediate Zone

As shown in Figure 3, based on the 2016 data, horizontal ground water-flow directions in the intermediate zone of the Magothy Aquifer are from south-southeast to north-northwest beneath, and downgradient of, the Landfill. They also converge slightly downgradient of the Landfill in the vicinity of Well Cluster PK-10, although the degree of convergence is much less than is observed in the shallow zone of the Magothy Aquifer.

The horizontal hydraulic gradient for the intermediate zone of the Magothy Aquifer, based on difference in water-level elevation in Wells SY-1D and PK-10I (1.48 feet) and the distance between the wells (1,400 feet), is 0.0010, which is similar to, but slightly higher than, the shallow zone gradient.

### 3.1.3 Deep Zone

As shown in Figure 4, based on the 2016 data, the horizontal ground water-flow direction in the deep zone of the Magothy Aquifer is also from south-southeast to north-northwest in the vicinity of the Landfill. This flow direction is based on data from just four downgradient wells and should therefore be considered approximate. However, it is consistent with the shallow and intermediate zone results, as well as the results from previous monitoring rounds. The convergence noted in the shallower zones of the Magothy Aquifer is not observed in this zone. This finding is consistent with the fact that the deep zone of the Magothy Aquifer is not bisected by the buried glacial valley.

The horizontal hydraulic gradient for the deep zone of the Magothy Aquifer, based on the difference in the water-level elevation in Wells SY-3DD and RW-12D (0.69 feet) and the distance between the wells (900 feet), is approximately 0.0008, which is similar to the horizontal hydraulic gradients in the shallow and intermediate zones of the aquifer. At the time of last year's monitoring round, the horizontal hydraulic gradient in the deep potentiometric zone of the aquifer was slightly lower than in the two shallower zones.

## 3.2 Vertical Hydraulic Gradients

Vertical hydraulic gradients are an indication of whether vertical ground water-flow directions, in the absence of confining units, are upward, downward or negligible. Vertical hydraulic gradients calculated using the available 2016 water-level data are included in Table 1. A positive value indicates a downward gradient, whereas a negative value indicates an upward gradient. The vertical hydraulic gradients shown in Table 1 indicate that downward gradients predominate, and that the highest-magnitude downward gradients occur between the shallow and intermediate zones of the Magothy Aquifer at On-Site, Downgradient Well Clusters SY-2 and SY-3, and at Off-Site Downgradient Well Cluster PK-10.

A similar-magnitude downward gradient has also typically been observed between the shallow and intermediate zones of the Magothy Aquifer at Well Cluster RB-11. However, gradients could not be calculated for this location in 2016 because water-level data are not available for Wells RB-11S and RB-11I. The vertical hydraulic gradient between the shallow and intermediate zones of the Magothy Aquifer is not calculated for Well Cluster RW-12 because there is no shallow zone well at this location.

A slightly upward gradient was observed between the shallow and intermediate zones of the Magothy Aquifer at Well Cluster SY-1. During previous monitoring rounds, downward gradients were observed at this location. The anomalous slightly upward gradient observed in 2016 is attributed to a localized response of the shallow zone of the Magothy Aquifer to the below-average recharge from precipitation in 2016.

Vertical hydraulic gradients between the intermediate and deep zones of the Magothy Aquifer are lower in magnitude and varied from downward to slightly upward at the three downgradient well clusters for which data are available.

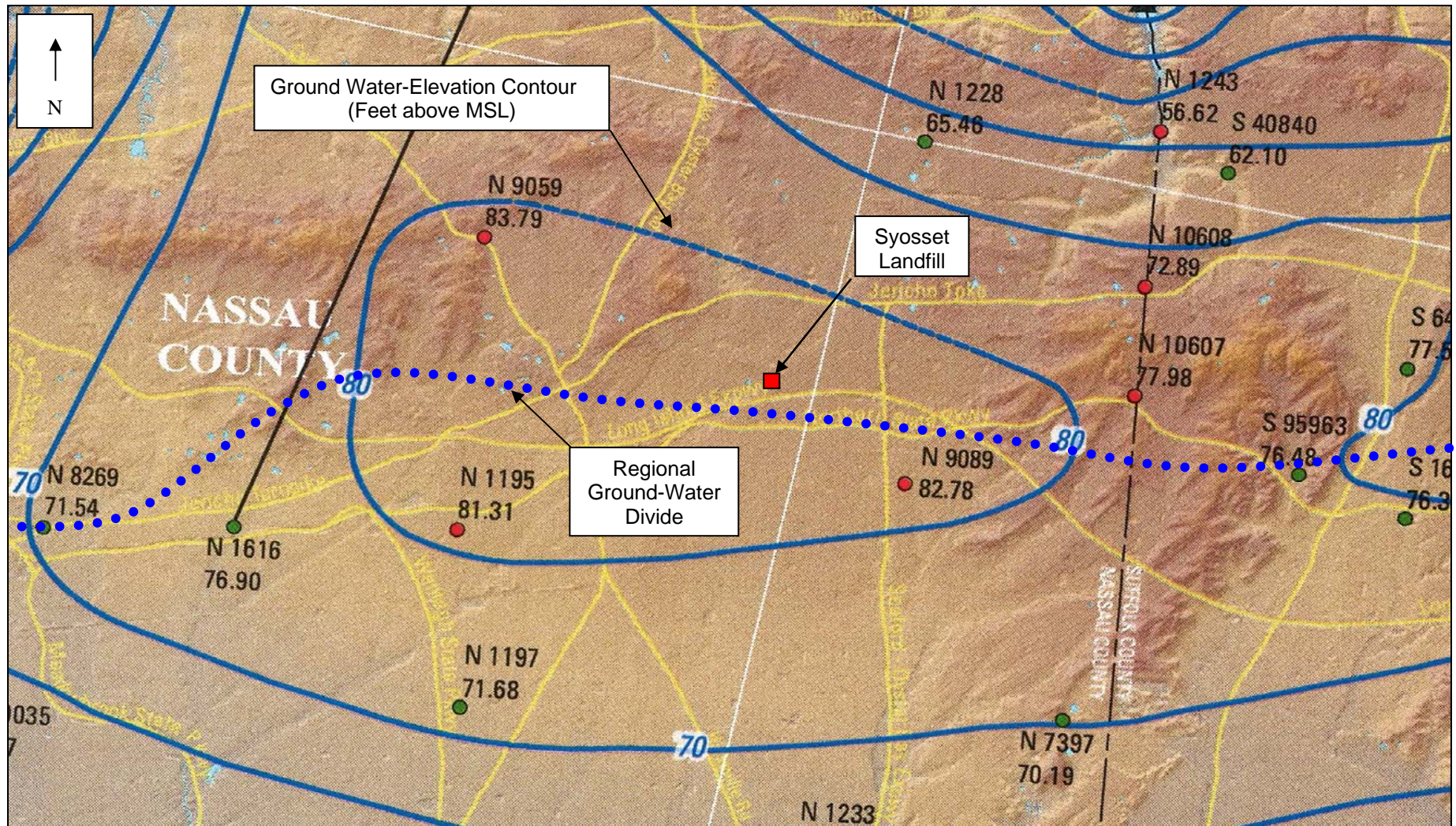
The predominance of downward vertical hydraulic gradients indicates the potential for ground water to migrate vertically downward in the absence of hydraulic barriers such as clay layers. Comparison of the average vertical gradient between the shallow and intermediate zone wells at each cluster (0.0029) to the horizontal gradient of the shallow zone of the Magothy Aquifer (0.0008) indicates that it is 3.6 times higher. This finding is consistent with the Landfill being located near the regional ground-water divide, as shown in Figure 5. Typically, ground water-flow directions in such areas have a strong downward component. For this reason, assessment of impacts to the intermediate and deep zone wells must also take ground water-flow patterns in the shallow zone of the Magothy Aquifer into consideration.

### **3.3 Influence of the Buried Glacial Valley on Ground Water-Flow Patterns**

Figure 6 shows a generalized structure contour map of the top of Magothy Formation based on the well boring logs from the OU-1 and OU-2 RIs. As shown in Figure 6, a trough in the Magothy Formation begins beneath the western portion of the Landfill and extends off-site to the north-northeast. This feature was formed by erosion of the Magothy Formation by the overlying Upper Glacial Formation, and is known as a buried glacial valley.

Due to differences in the hydraulic properties of Upper Glacial and Magothy Formations, the buried glacial valley influences local ground water-flow patterns. Specifically, the Upper Glacial Formation is more permeable than the Magothy Formation, which is finer-grained and contains localized clay layers that can cause semi-confined conditions. Therefore, in the vicinity of the buried glacial valley, ground water tends to flow out of the Magothy Aquifer and into the Upper Glacial Formation due to the hydraulic pressure differential between the formations. The influence of the buried glacial valley is most pronounced where it intersects the water table. Comparison of the structural contours in Figure 6 to the water-level data in Figure 2 indicates that the buried glacial valley gets





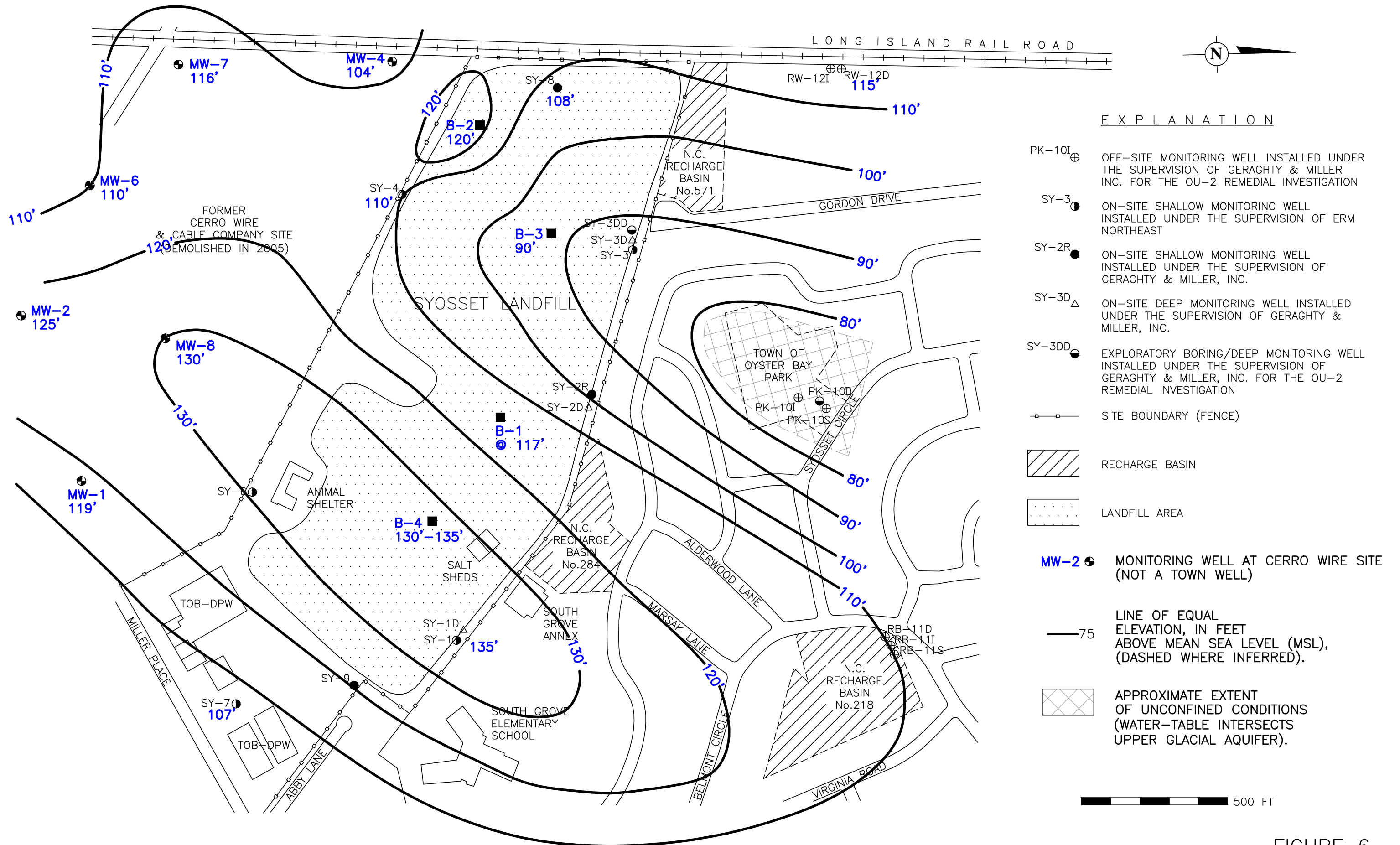
Source: Sheet 1 of USGS Scientific Investigations Map 3326, showing water table-elevation contours during April-May 2013.

**FIGURE 5**

LOCATION OF SYOSSET LANDFILL  
RELATIVE TO REGIONAL GROUND-WATER DIVIDE







- EXPLANATION**
- PK-10I ⊕ OFF-SITE MONITORING WELL INSTALLED UNDER THE SUPERVISION OF GERAGHTY & MILLER INC. FOR THE OU-2 REMEDIAL INVESTIGATION
  - SY-3 ● ON-SITE SHALLOW MONITORING WELL INSTALLED UNDER THE SUPERVISION OF ERM NORTHEAST
  - SY-2R ● ON-SITE SHALLOW MONITORING WELL INSTALLED UNDER THE SUPERVISION OF GERAGHTY & MILLER, INC.
  - SY-3D Δ ON-SITE DEEP MONITORING WELL INSTALLED UNDER THE SUPERVISION OF GERAGHTY & MILLER, INC.
  - SY-3DD ● EXPLORATORY BORING/DEEP MONITORING WELL INSTALLED UNDER THE SUPERVISION OF GERAGHTY & MILLER, INC. FOR THE OU-2 REMEDIAL INVESTIGATION
  - SITE BOUNDARY (FENCE)
  - RECHARGE BASIN
  - LANDFILL AREA
  - MW-2** ● MONITORING WELL AT CERRO WIRE SITE (NOT A TOWN WELL)
  - 75 LINE OF EQUAL ELEVATION, IN FEET ABOVE MEAN SEA LEVEL (MSL), (DASHED WHERE INFERRED).
  - APPROXIMATE EXTENT OF UNCONFINED CONDITIONS (WATER-TABLE INTERSECTS UPPER GLACIAL AQUIFER).

FIGURE 6

GENERALIZED STRUCTURE CONTOUR MAP OF THE TOP OF THE MAGOTHY FORMATION SYOSSET LANDFILL, SYOSSET, NY



deeper to the north-northeast and intersects the water table downgradient of the Landfill. This finding explains the converging ground water-flow patterns in the shallow and intermediate zones of the Magothy Aquifer downgradient of the Landfill.

Moreover, it should be noted that as a result of the tendency for horizontal ground water-flow directions in the shallow and intermediate zones of the Magothy Aquifer to converge downgradient of the Landfill, there is potential for contamination that is not associated with the Landfill to migrate into the area downgradient of the Landfill. For example, in 2005, the gasoline service station located on the northwest corner of the intersection of South Oyster Bay Road and Miller Place replaced its underground storage tanks. LKB personnel noted that the excavated soil stockpile exhibited a very strong gasoline odor, indicating that a release had occurred. This gasoline service-station site could potentially be a source of the gasoline-related VOCs that were previously detected periodically at Well Cluster PK-10. Also during 2005, the former Cerro Wire site, located adjacent to and upgradient of the Landfill, and comprised of a large industrial building, water tower and paved parking areas, was demolished and a large quantity of contaminated soil was reportedly removed. The site was an open excavation for most of 2005, but was eventually re-graded, covered with topsoil and seeded, and is presently vacant land. The changes at the Cerro Wire site in 2005 have resulted in increased recharge directly upgradient of the Landfill and could potentially result in contamination from that site migrating north beneath the Landfill.

## SECTION 4

### RESULTS OF TASK 3 – GROUND-WATER MONITORING

The 2016 ground water-quality monitoring round was performed on December 6<sup>th</sup>, 7<sup>th</sup> and 13<sup>th</sup>, and included the following 11 wells specified in the O&M Manual:

- SY-6 (Upgradient Well);
- SY-2R, SY-2D, SY-3, SY-3D and SY-3DD (On-Site Downgradient Wells); and
- PK-10S, PK-10I, PK-10D, RW-12I and RW-12D (Off-Site Downgradient Wells).

These ground water-monitoring wells were purged and sampled utilizing the modified low-flow procedure. The purge water from the off-site downgradient wells was collected and disposed of at a licensed facility. Daily trip blanks, a field blank, a matrix spike/matrix spike duplicate, and an anonymous duplicate sample from Well SY-3D, labeled “Well SY-7”, were also collected.

The samples were analyzed for the following parameters:

- USEPA Target Compound List (TCL) of Volatile Organic Compounds (VOCs),
- New York State Department of Environmental Conservation (NYSDEC) Part 360 Baseline Field and Leachate Indicator Parameters, and
- Total and Dissolved USEPA Target Analyte List (TAL) inorganic parameters, and
- Total Cyanide.

The ground-water samples were collected by LKB. The water purged from the off-site downgradient wells was collected and disposed of by Eastern Environmental Solutions, Inc. of Manorville, New York. Laboratory analyses were performed by CHEMTECH of Mountainside, New Jersey. The results were validated by Environmental Data Services, Inc. of Newport News, Virginia.

The field parameter readings and validated laboratory results are summarized in Tables 3 through 6. The monitoring results are compared to NYSDEC Part 703 Ambient Water Quality Standards and Guidelines for Class GA (potable) ground water, except for the parameters arsenic and total dissolved solids (TDS). The results for these two parameters are compared to the Federal MCL for arsenic and SMCL for TDS because they are more stringent than the NYSDEC standards for these parameters. The data usability summary reports and validated laboratory data are provided in Appendix B.

#### 4.1 Results of Field Parameter Measurements

Prior to collecting the field parameter readings, a minimum of one well casing volume plus ten percent was purged from each well. Field parameters were then monitored continuously utilizing a YSI Professional Handheld Multiparameter Water Quality Meter equipped with a flow-through cell until the readings stabilized. Turbidity was also monitored with a Hach portable turbidity meter. The final field readings are provided in Table 3. Review of Table 3 indicates noticeable differences for certain field parameters in certain downgradient wells, relative to Well SY-6. The specific differences vary by well and are summarized in the table below:

<b>Well No.</b>	<b>Field Parameter Difference(s) Relative to Upgradient Well SY-6</b>
SY-2R	Lower pH.
SY-2D	Lower DO and pH.
SY-3	Higher temperature; lower DO; negative Eh and ORP.
SY-3D	Higher temperature; lower DO; negative Eh and ORP.
PK-10S	Lower pH.
PK-10I	Lower DO and pH.
PK-10D	Higher conductivity; lower DO and pH.
RW-12I	Lower DO and Eh.
RW-12D	Lower DO and pH.

Most of these differences, while noticeable, actually represent relatively minor ground water-quality impacts; and most occurred in the on-site downgradient wells. Overall, these findings are consistent with previous years' field parameter results. No significant potentially Landfill-related differences were noted for Well SY-3DD.

Standards exist for two of the field parameters – pH and turbidity. The pH of ground water in most of the wells was lower than the 6.5-standard unit range minimum, but these results are attributed to naturally-occurring low-pH of the ground water on Long Island. The turbidity of the ground water in all the wells was less than the 5-NTU limit. Overall, turbidity was slightly lower in the off-site downgradient wells relative to the upgradient well and shallow and intermediate zone on-site downgradient wells.



Table 3  
 Summary of Field Parameter Monitoring Results  
 Syosset Landfill 2016 Annual Post-Closure Ground Water-Monitoring Report

Parameter	Units	Water <sup>1</sup> Quality Standard	Upgradient Well SY-6	Downgradient Wells									
				On-Site					Off-Site				
				SY-2R	SY-2D	SY-3	SY-3D	SY-3DD	PK-10S	PK-10I	PK-10D	RW-12I	RW-12D
Temperature	°C	--	15.4	14.4	15.2	16.8	17.3	15.6	14.9	15.8	15.4	15.0	14.7
Conductivity	µS/cm	--	319.4	140.1	103.3	110.2	216.9	34.3	134.3	217.0	539.1	212.7	132.2
DO	mg/L	--	6.47	4.96	0.92	0.13	0.22	8.68	4.28	0.54	0.59	1.46	1.25
pH	SU	6-5-8.5	6.56	<b><u>5.83</u></b>	<b><u>6.26</u></b>	6.86	6.83	6.51	<b><u>5.83</u></b>	<b><u>6.17</u></b>	<b><u>5.74</u></b>	6.63	<b><u>6.10</u></b>
Eh	pHmV	--	13.2	54.0	30.0	-0.38	-2.0	15.9	54.3	35.3	59.2	9.2	39.2
ORP	mV	--	128	147	137	-86.1	-24.9	110	185	222	199	227	232
Field Observations	NA	--	Clear, No Odor	Clear, No Odor	Clear, No Odor	Clear, No Odor	Clear, No Odor	Clear, No Odor	Clear, No Odor	Clear, No Odor	Clear, No Odor	Clear, No Odor	Clear, No Odor
Turbidity	NTU	5	4.52	4.82	2.71	4.41	1.04	0.40	1.23	1.00	1.70	0.64	1.22

Notes:

1 = NYSDEC Part 703 Ambient Water Quality Standards or Guidance Value (GV) for Class GA (Potable) ground water.

°C = Degrees Celcius.

µS/cm = microSiemens per centimeter.

milligrams per Liter = milligrams per Liter.

SU = Standard Units.

pHmV = pH in milliVolts.

mV = milliVolts.

NA = Not applicable.

NTU = Nephelometric Turbidity Units.

Bold and Underlined = Exceeds ground water-quality standard or guidance value.

-- = No standard or guidance value.

## 4.2 Results of Volatile Organic Compound (VOC) Analyses

The 2016 VOC results are summarized in Table 4. As shown in Table 4, VOCs were not detected in the upgradient well, Well SY-6. Regarding the on-site downgradient wells, VOCs were not detected in Well SY-2R. VOCs were detected in Well SY-2D and Well Cluster SY-3, but were limited to very low, estimated concentrations of one to three VOCs in each well that are much lower than their respective Class GA ground-water standards. Most of these VOC detections occurred in Wells SY-3 and SY-3D. The VOCs detected in these two wells were the chlorinated solvents cis-1,2-dichloroethene and trichloroethene, and the aromatic hydrocarbon chlorobenzene.

At Off-Site Downgradient Well Cluster PK-10, VOCs were not detected in the shallow zone well, Well PK-10S. VOCs were detected in the two deeper wells, Wells PK-10I and PK-10D, but were limited to relatively low, primarily estimated, concentrations of three to four VOCs in each well. Most of the VOCs detected in these two wells are aromatic hydrocarbons. With the exception of the 5.6-ug/L concentration of chlorobenzene detected in Well PK-10I, which slightly exceeded the 5-ug/L Class GA ground-water standard, VOC concentrations in these two wells were lower than their respective Class GA ground-water standard or guidance value, as applicable.

At Off-Site Downgradient Well Cluster RW-12, a number of chlorinated solvents and aromatic hydrocarbons were detected in both wells. For the most part, the same VOCs were detected in both wells, however the highest concentration of most of the VOCs occurred in the deep zone well, Well RW-12D. Total VOC concentrations in these two wells were 53.9 ug/L and 96.5 ug/L, respectively. These results represent increases of approximately 32 and 53 percent, respectively, relative to last year's results, but are still consistent with the historical results for these wells.

The concentrations of three VOCs in Well RW-12I (chlorobenzene, 1,2-dichlorobenzene and 1,4-dichlorobenzene) and eight VOCs in Well RW-12D (chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,1-dichloroethane, 1,2-dichloroethane, cis-1,2-dichloroethene and vinyl chloride) were higher than their respective Class GA ground-water standards. However, with the exception of the chlorobenzene detections, which exceeded the 5-ug/L Class GA standard by factors of approximately four and eight in Wells RW-12I and RW-12D, respectively, the magnitudes of the VOC exceedances in these two wells were relatively low.

In summary, the VOC results from the 2016 post-closure monitoring round continue to indicate that the Landfill is not a significant source of VOCs. Specifically, VOC detections in the on-site, downgradient wells were limited to low, estimated concentrations of one to three VOCs in Well SY-2D and Well Cluster SY-3. Moreover, the fact that most of the VOCs detected at Off-Site, Downgradient Well Cluster RW-12 are not present in the on-site downgradient wells indicates that they are not Landfill-related. This finding is consistent with the ground water-flow directions shown in Figures 2 through 4, which indicate that Well Cluster RW-12 is located sidegradient to, rather than directly downgradient of, the Landfill.

Table 4  
 Summary of Volatile Organic Compound (VOC) Results  
 Syosset Landfill 2016 Annual Post-Closure Ground Water-Monitoring Report

Analyte	Units	Water <sup>1</sup> Quality Standard	Upgradient Well SY-6	Downgradient Wells										
				On-Site						Off-Site				
				SY-2R	SY-2D	SY-3	SY-3D	SY-7 <sup>2</sup>	SY-3DD	PK-10S	PK-10I	PK-10D	RW-12I	RW-12D
1,1,1-Trichloroethane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichlorotrifluoroethane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.64 J	3.7	<b>7.9</b>
1,1-Dichloroethene	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	0.04	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromoethane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	3	<1	<1	<1	<1	<1	<1	<1	<1	0.45 J	<1	<b>7.1</b>	<b>10.7</b>
1,2-Dichloroethane	ug/L	0.6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<b>0.81 J</b>
1,2-Dichloropropane	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2.8	<b>4.1</b>
1,4-Dichlorobenzene	ug/L	3	<1	<1	<1	<1	<1	<1	<1	<1	1.4	<1	<b>11.5</b>	<b>16</b>
1,4-Dioxane	ug/L	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
2-Butanone	ug/L	50 <sup>GV</sup>	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	ug/L	50 <sup>GV</sup>	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone	ug/L	--	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	50 <sup>GV</sup>	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Benzene	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.84 J	0.5 J
Bromochloromethane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	50 <sup>GV</sup>	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	50 <sup>GV</sup>	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	5	<1	<1	<1	<1 J	<1 J	<1 J	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	60 <sup>GV</sup>	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	5	<1	<1	<1	0.26 J	0.33 J	0.31 J	<1	<1	<b>5.6</b>	<1	<b>19.9</b>	<b>38.9</b>
Chloroethane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	7	<1	<1	<1	<1	<1	<1	0.57 J	<1	<1	4.3	<1	4.7
Chloromethane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	5	<1	<1	<1	0.32 J	0.4 J	0.36 J	<1	<1	<1	<1	3.3	<b>7.1</b>
cis-1,3-Dichloropropene	ug/L	0.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cyclohexane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	ug/L	50 <sup>GV</sup>	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
m&p-xylenes	ug/L	10*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Methyl acetate	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl tert-butyl ether	ug/L	10 <sup>GV</sup>	<1	<1	<1	<1	<1	<1	<1	<1	0.54 J	<1	<1	<1
Methylcyclohexane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.24 J	0.26 J	0.55 J
o-xylene	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	5	<1	<1	0.24 J	<1	<1	<1	<1	<1	<1	<1	1.9	1.2
Toluene	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	0.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	<1	<1	<1	0.46 J	0.28 J	0.28 J	<1	<1	<1	<1	1.3	1.1
Trichlorofluoromethane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.3	<b>2.9</b>
No. of Target VOCs Detected <sup>3</sup> :	out of 52	--	0/52	0/52	1/52	3/52	3/52	3/52	1/52	0/52	4/52	3/52	11/52	13/52
Total VOC Concentration <sup>4</sup> :	ug/L	--	ND	ND	0.24 J	1.04 J	1.01 J	0.95 J	0.57 J	ND	7.99 J	5.18 J	53.90 J	96.46 J

**Notes:**

ug/L = micrograms per Liter.

1 = NYSDEC Part 703 Ambient Water Quality Standards or Guidance Value (GV) for Class GA (Potable) ground water.

2 = Duplicate sample collected from Well SY-3D.

3 = m- and p-xylene counted as one VOC, total excludes total xylenes.

4 = Based on all target VOCs detected, including estimated concentrations.

J = Estimated concentration.

R = Result qualified as rejected by data validator.

TIC = Tentatively Identified Compound (not a Target Analyte included in analytical method).

**Bold and Underlined** = Exceeds ground water-quality standard or guidance value.

\* = Based on 5-ug/L limit for each isomer.

ND = None detected.

-- = No standard or guidance value.

### 4.3 Results of NYSDEC Part 360 Leachate Indicator Analyses

The leachate indicator parameters analyzed for included alkalinity, ammonia, BOD<sub>5</sub> (biological oxygen demand), bromide, chloride, color, COD (chemical oxygen demand) total hardness, nitrate, total phenols, sulfate, TDS, TKN (total Kjeldahl nitrogen), and TOC (total organic carbon).

As shown in Table 5, compared to Upgradient Well SY-6, the concentrations of every leachate indicator parameter except bromide, nitrate, total phenols and sulfate were noticeably higher in Wells SY-3 and SY-3D, which monitor the shallow and intermediate zones of the Magothy Aquifer, respectively, at the downgradient Landfill boundary. Elevated levels of leachate-related contaminants were not detected in Well SY-3DD, which monitors the deep zone of the Magothy Aquifer at the downgradient Landfill boundary. At On-Site Downgradient Well Cluster SY-2, only chloride and TDS were present at concentrations significantly higher than in Upgradient Well SY-6.

Comparison of the leachate parameter results for the upgradient and on-site downgradient wells to the Class GA ground-water standards indicates that Landfill-related exceedances in these wells were limited to: chloride and TDS in Wells SY-2R and SY-2D; ammonia, color and TDS in Wells SY-3 and SY-3D; and chloride in Well SY-3D. An exceedance for bromide occurred in the duplicate sample from Well SY-3D, but not in the actual sample, so this exceedance is likely spurious. No exceedances occurred in Upgradient Well SY-6 or On-Site Downgradient Well SY-3DD.

Comparison of the leachate indicator parameter results for the off-site downgradient wells to the Class GA ground-water standards indicates that exceedances were limited to: total phenols in Well PK-10S; ammonia, bromide, chloride and TDS in Well PK-10I; and ammonia, bromide and TDS in Wells RW-12I and RW-12D. No exceedances occurred in Well PK-10D.

Based on comparison of the leachate indicator parameter results for the on-site and off-site downgradient wells, a majority of the parameters detected at elevated concentrations in the on-site downgradient wells were detected at similar concentrations in Off-Site Downgradient Well PK-10I, indicating Landfill-related impacts in this well. However, this comparison also indicates that certain parameters (e.g., alkalinity, ammonia, COD, hardness, nitrate, sulfate, TKN and TOC) were detected at higher concentrations in one or both wells at Well Cluster RW-12 than in the on-site downgradient wells. Moreover, at least one parameter (e.g., chloride) detected at relatively high concentrations in most on-site downgradient wells and Downgradient Off-Site Well PK-10I, was detected at much lower concentrations in Well Cluster RW-12. These disparities, together with the VOC and ground water-flow direction results, suggest that the leachate indicator parameters detected at Well Cluster RW-12 are not Landfill-related.

Table 5  
Summary of Leachate Indicator Parameter Results  
Syosset Landfill 2016 Annual Post-Closure Ground Water-Monitoring Report

Analyte	Units	Water <sup>1</sup> Quality Standard	Upgradient Well SY-6	Downgradient Wells										
				On-Site						Off-Site				
				SY-2R	SY-2D	SY-3	SY-3D	SY-7 <sup>2</sup>	SY-3DD	PK-10S	PK-10I	PK-10D	RW-12I	RW-12D
Alkalinity	mg/L	--	109	29.2	31.9	366	466	474	5.04	9.36	122	20.8	805	101
Ammonia	mg/L	2	0.083 J	0.045 J	0.073 J	<b>10.9 J</b>	<b>16.3 J</b>	<b>15.2 J</b>	0.042 J	0.09 J	<b>5.21</b>	0.067 J	<b>82.5</b>	<b>5.75</b>
BOD5	mg/L	--	<2 J	<2 J	<2	3.42	3.71	2.35	<2	<2	2	<2	2.73	2.01
Bromide	mg/L	2	1.59	1.51	0.938	1.72	<0.5	<b>2.07</b>	<0.5	0.912	<b>2.55</b>	1.32	<b>6.99</b>	<b>2.35</b>
Chloride	mg/L	250	4.94	<b>398</b>	<b>266</b>	199	<b>549</b>	<b>541</b>	4.75	11.8	<b>556</b>	119	147	210
COD	mg/L	--	<5	<5	<5	5.76	5.76	5.76	<5	<5	9.76	<5	52.8	10.8
Color	cu	15	5 J	<5 J	<5	<b>40</b>	<b>60</b>	<b>40</b>	<5	<5	<5	<5	<5	<5
Hardness, Total	mg/L	--	156	105	76.1	166	192	187	6.76 J	39.4	181	99.2	357	273
Nitrate	mg/L	10	1.54 J	1.57 J	1.04	<0.113	<0.113	<0.113	0.79	2.9	<0.113	4.06	<0.113	9.88
Phenols, Total	mg/L	0.001	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<b>0.011 J</b>	<0.05	<0.05	<0.05	<0.05
Sulfate	mg/L	250	42.3	34.3	10.7	42.2	47.4	47.7	1.95	18.2 J	35.9 J	20.4 J	71 J	199 J
TDS	mg/L	500*	198	<b>787</b>	<b>544</b>	<b>538</b>	<b>1,138</b>	<b>1,209</b>	28	86	<b>1,175</b>	307	<b>974</b>	<b>805</b>
TKN	mg/L	--	0.338 J	0.354 J	0.228 J	10.8	15.8	15.1	0.158 J	0.24 J	4.82	0.196 J	77	5.66
TOC	mg/L	--	2.01	1.94	4.23	4.23	4.91	6.4	0.311 J	0.522 J	2.41 J	1.1 J	19.4 J	4.42 J

Notes:

1 = NYSDEC Part 703 Ambient Water Quality Standards or Guidance Value (GV) for Class GA (Potable) ground water.

2 = Duplicate sample collected from Well SY-3D.

\* = TDS limit is Federal SMCL, which is more stringent than the 1,000-mg/L NYSDEC limit for Class GA ground water.

mg/L = milligrams per Liter.

cu = color units.

J = Estimated concentration.

BOD5 = Biological oxygen demand, 5-day.

COD = Chemical oxygen demand.

TDS = Total dissolved solids.

TKN = Total Kjeldhal nitrogen.

TOC = Total organic carbon.

**Bold and Underlined** = Exceeds ground water-quality standard or guidance value.

-- = No standard or guidance value.

Taken as a whole, the 2016 leachate indicator parameter results indicate that the Landfill continues to be a relatively minor source of the Part 360 leachate-related contaminants.

#### **4.4 Results of USEPA Target Analyte List (TAL) and Cyanide Analyses**

The samples were analyzed for both total and dissolved TAL parameters, and total cyanide. The RCRA (Resource Conservation and Recovery Act) and PPL (Priority Pollutant List) metals, which are a subset of 14 of the more toxic metals, are included in the TAL parameters. The results are summarized in Table 6, and the RCRA and PPL metals are identified with asterisks.

As shown in Table 6, of the 24 parameters analyzed for total concentrations, six (antimony, cyanide, selenium, silver, thallium and vanadium) were not detected. Of the 18 detected parameters, seven (aluminum, barium, cadmium, cobalt, copper, lead and nickel), were only detected sporadically and/or at low concentrations less than their respective Class GA standard or guidance value. The highest concentrations of copper and one other parameter (zinc) were detected in the upgradient well. The remaining 10 detected TAL parameters include four RCRA/PPL metals (arsenic, beryllium, chromium and mercury), and calcium, iron, magnesium, manganese, potassium and sodium. The results for these 10 parameters are discussed below.

Arsenic was detected in On-Site Downgradient Wells SY-3 and SY-3D at total and dissolved concentrations higher than the 10-ug/L federal MCL. Comparison of the total and dissolved results for these two wells indicates that the arsenic is in dissolved form. The only other detections of arsenic occurred in Off-Site Downgradient Wells PK-10D, RW-12I and RW-12D, and were limited to low, estimated concentrations that are much lower than the federal MCL.

Beryllium was only detected in On-Site Downgradient Well SY-2R, at total and dissolved concentrations approximately 2.5 times higher than the 3-ug/L Class GA guidance value. Comparison of the total and dissolved results for this well indicates that the beryllium is in dissolved form.

Chromium was detected in the unfiltered sample from Off-Site Downgradient Well PK-10D at a concentration slightly higher than the 50-ug/L Class GA standard, but was only detected at a much lower concentration in the filtered sample from this well. As such, the exceedance for chromium in the unfiltered sample appears to be sediment-related. Chromium was also detected in several other downgradient wells, but only at low, primarily estimated, concentrations lower than the Class GA ground-water standard.

Mercury was detected at a concentration slightly higher than the 0.7-ug/L Class GA ground-water standard in both the unfiltered and filtered samples from Off-Site Downgradient Well PK-10D. Comparison of the total and dissolved mercury results for this well indicates that approximately 95 percent of the mercury is in dissolved form. This detection is attributed to natural-occurring mercury rather than the Landfill because

Table 6  
Summary of Total and Dissolved Metals Results  
Syosset Landfill 2016 Annual Post-Closure Ground Water-Monitoring Report

Analyte	Units	Water <sup>1</sup> Quality Standard	Upgradient Well SY-6	Downgradient Wells										
				On-Site						Off-Site				
				SY-2R	SY-2D	SY-3	SY-3D	SY-7 <sup>2</sup>	SY-3DD	PK-10S	PK-10I	PK-10D	RW-12I	RW-12D
<b>TOTAL METALS RESULTS</b>														
Aluminum	ug/L	-	20.9 J	244	130 J	<200	<200	<200	<200	<200	<200	<200	<200	<200
Antimony*	ug/L	3	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0
Arsenic*	ug/L	10**	<10.0	<10.0	<10.0	<b>44.0</b>	<b>11.9</b>	<b>16.6</b>	<10.0	<10.0	<10.0	4.1 J	4.3 J	5.4 J
Barium*	ug/L	1,000	87.8 J	97.7 J	75.8 J	140 J	187 J	181 J	<200	15.6 J	60.1 J	38.7 J	63.1 J	71.9 J
Beryllium*	ug/L	3 <sup>GV</sup>	<5.0	<b>7.4</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cadmium*	ug/L	5	<5.0	<5.0	<5.0	1.0 J	0.74 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Calcium	ug/L	-	43,000	32,100	21,700	40,300	53,600	52,100	1,690 J	11,700	49,200	26,200	75,400	71,700
Chromium*	ug/L	50	<10.0	2.2 J	<10.0	<10.0	<10.0	<10.0	6.2 J	1.2 J	<b>59.2</b>	14.3	<10.0	1.7 J
Cobalt	ug/L	-	<50.0	12.0 J	<50.0	<50.0	17.6 J	17.3 J	<50.0	<50.0	61.9	<50.0	<50.0	<50.0
Copper*	ug/L	200	35.1	<25.0	<25.0	10.1 J	5.6 J	4.1 J	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Cyanide	ug/L	200	<10.0 J	<10.0 J	<10.0 J	<10.0 J	<10.0 J	<10.0 J	<10.0 J	<10.0	<10.0	<10.0	<10.0	<10.0
Iron	ug/L	300	<b>672</b>	126	69.0 J	<b>33,600</b>	<b>22,500</b>	<b>21,800</b>	25.5 J	36.4 J	297	102	67.6 J	16.6 J
Lead*	ug/L	25	<10.0	<10.0	3.7 J	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Magnesium	ug/L	35,000 <sup>GV</sup>	11,700	5,960	5,330	15,800	14,200	13,700	616 J	2,470 J	14,200	8,210	<b>40,900</b>	22,900
Manganese	ug/L	300	43.5	33.9	<b>962</b>	<b>4,240</b>	<b>904</b>	<b>878</b>	<15.0	10.9 J	<b>1,800</b>	20.0	58.7	14.1 J
Mercury*	ug/L	0.7	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.33	<b>0.92</b>	0.028 J	0.031 J
Nickel*	ug/L	100	6.4 J	37.0 J	<40.0	<40.0	<40.0	<40.0	4.0 J	29.5 J	30.6 J	8.1 J	<40.0	<40.0
Potassium	ug/L	-	<5,000	2,870 J	5,510	14,300	23,500	22,800	<5,000	<5,000	17,000	<5,000	80,000	3,720 J
Selenium*	ug/L	10	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0
Silver*	ug/L	50	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Sodium	ug/L	20,000	6,160	<b>232,000</b>	<b>157,000</b>	<b>115,000</b>	<b>315,000</b>	<b>306,000</b>	3,330 J	5,480	<b>288,000</b>	<b>49,600</b>	<b>135,000</b>	<b>132,000</b>
Thallium*	ug/L	0.5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vanadium	ug/L	-	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Zinc*	ug/L	2,000 <sup>GV</sup>	1,660	45.2 J	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0
<b>DISSOLVED METALS RESULTS</b>														
Aluminum	ug/L	-	<200	215	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Antimony*	ug/L	3	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0
Arsenic*	ug/L	10**	<10.0	<10.0	<10.0	<b>44.3</b>	<b>16.0</b>	<b>16.5</b>	<10.0	<10.0	<10.0	4.9 J	<10.0	<10.0
Barium*	ug/L	1,000	85.8 J	100 J	75.3 J	137 J	188 J	186 J	<200	15.8 J	61.3 J	39.7 J	64.9 J	71.4 J
Beryllium*	ug/L	3 <sup>GV</sup>	<5.0	<b>7.9</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cadmium*	ug/L	5	<5.0	<5.0	<5.0	0.97 J	<5.0	0.87 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Calcium	ug/L	-	42,000	33,500	22,100	39,200	53,800	53,900	1,660 J	11,600	49,800	27,000	76,900	71,300
Chromium*	ug/L	50	<10.0	2.1 J	<10.0	<10.0	<10.0	2.4 J	<10.0	4.1 J	11.4	1.8 J	<10.0	<10.0
Cobalt	ug/L	-	<50.0	12.0 J	<50.0	<50.0	17.9 J	17.6 J	<50.0	<50.0	60.1	<50.0	<50.0	<50.0
Copper*	ug/L	200	30.6	<25.0	<25.0	7.5 J	5.0 J	5.4 J	<25.0	<25.0	<25.0	<25.0	3.7 J	<25.0
Iron	ug/L	300	251	15.8 J	19.3 J	<b>30,800</b>	<b>22,700</b>	<b>22,600</b>	<100	76.3 J	70.8 J	15.8 J	65.9 J	<100
Lead*	ug/L	25	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Magnesium	ug/L	35,000 <sup>GV</sup>	11,400	6,180	5,270	15,600	14,200	14,200	633 J	2,460 J	14,440	8,450	<b>41,800</b>	22,900
Manganese	ug/L	300	40.8	33.5	<b>915</b>	<b>4,040</b>	<b>916</b>	<b>914</b>	<15.0	13.4 J	<b>1,840</b>	18.3	60.1	13.7 J
Mercury*	ug/L	0.7	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.26	<b>0.87</b>	0.041 J	0.026 J
Nickel*	ug/L	100	6.0 J	38.1 J	<40.0	<40.0	<40.0	9.7 J	<40.0	18.6 J	34.4 J	15.3 J	12.1 J	<40.0
Potassium	ug/L	-	<5,000	2,990 J	5,410	13,800	23,600	23,500	<5,000	<5,000	17,200	<5,000	82,000	3,710 J
Selenium*	ug/L	10	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0	<35.0
Silver*	ug/L	50	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Sodium	ug/L	20,000	6,060	<b>237,000</b>	<b>158,000</b>	<b>112,000</b>	<b>319,000</b>	<b>317,000</b>	3,520 J	5,490	<b>291,000</b>	<b>51,300</b>	<b>139,000</b>	<b>131,000</b>
Thallium*	ug/L	0.5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vanadium	ug/L	-	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Zinc*	ug/L	2,000 <sup>GV</sup>	1,550	56.7 J	<60.0	<60.0	<60.0	<60.0	<60.0	45.1 J	<60.0	<60.0	<60.0	<60.0

**Notes:**

ug/L = micrograms per Liter.

1 = NYSDEC Part 703 Ambient Water Quality Standard or Guidance Value (GV) for Class GA (Potable) ground water.

2 = Duplicate sample collected from Well SY-3D.

J = Estimated concentration.

Bold & Underlined = Exceeds ground water-quality standard or guidance value.

\* = RCRA/PPL metal.

\*\* = USEPA MCL, revised downward from 50 ug/L effective January 2006. NYSDEC TOGS 1.1.1 Ambient Water Quality Standard is 25 ug/L.

mercury has not been detected in any of the on-site wells and elevated levels of contaminants known to be associated with the Landfill were not detected in this well. The presence of mercury at similar concentrations in the stratigraphic equivalent of the Magothy Formation in New Jersey has been well documented in studies by the United States Geological Survey (Refs: USGS Open-File Report 95-475, and USGS Water-Resources Investigations Report 00-4230). Mercury was also detected at low, primarily estimated, concentrations in the other off-site intermediate and deep zone wells. The mercury in these wells was also primarily in dissolved form and attributed to naturally-occurring mercury.

Calcium, iron, magnesium, manganese, potassium and sodium were each detected in one or more downgradient wells at concentrations noticeably higher than in Upgradient Well SY-6. Except for sodium, which had a more widespread occurrence, the highest concentrations of these parameters occurred in Wells SY-3, SY-3D, PK-10I, RW-12I and/or RW-12D.

Comparison of the results for the on-site and off-site downgradient wells indicates that Landfill-related off-site impacts are minimal. For example, arsenic was only detected at significant concentrations in two on-site downgradient wells. The highest concentrations of iron, manganese and sodium also occurred in on-site downgradient wells, whereas the highest concentrations of calcium, magnesium and potassium occurred in Off-Site Downgradient Well RW-12I. The differences in the results for the on-site downgradient wells and Off-Site Downgradient Well RW-12I suggest that certain parameters detected at Well Cluster RW-12 are not Landfill-related. Review of Table 6 also indicates that overall, the detected TAL parameters were present at similar concentrations in unfiltered and filtered samples. This indicates that the detected TAL parameters are primarily present in ground-water in dissolved form.

Taken as a whole, the TAL parameter and cyanide results indicate that the Landfill continues to be a relatively minor source of certain metals/inorganic parameters, but is not a significant source of the RCRA/PPL metals. The only Landfill-related exceedances for the RCRA/PPL metals in 2016 were for arsenic in Wells SY-3 and SY-3D, and beryllium in Well SY-2R. These exceedances appear to be limited to the downgradient landfill boundary as exceedances for these parameters did not occur in the deeper on-site downgradient wells at these two clusters, or in the off-site downgradient wells.



## SECTION 5

### COMPARISON OF CURRENT MONITORING RESULTS TO PREVIOUS MONITORING RESULTS

The 2016 ground water-monitoring results were compared to previous post-closure monitoring results, and the OU-1 RI and the OU-2 RI results, to determine if ground water-flow patterns and/or quality conditions have changed significantly since the Landfill was capped. This entailed 1) comparison of the current and historical post-closure water-level data, 2) comparison of the current and previous overall results for each parameter group, 3) comparison, on a well-to-well basis, of the current and previous results for Landfill-related exceedances of the ground-water standards or guidance values, and 4) trend analyses for the leachate indicator parameters that have historically been detected on a regular basis.

#### 5.1 Temporal Variation in Water-Level Elevations

The 2016 water-level results are compared to post-closure water-level data collected since 2003 in Table 7. Review of Table 7 indicates that in December 2016 water-level elevations were, on average: 1.75 feet higher relative to 2003 data, -0.23 feet lower relative to 2005 data, -5.66 feet lower relative to the 2006 data, -6.89 feet lower relative to the 2007 data, -6.47 feet lower relative to the 2008 data, -5.60 feet lower relative to the 2009 data, -8.20 feet lower relative to the 2010 data, -9.49 feet lower relative to the 2011 data, -7.42 feet lower relative to the 2012 data, -6.01 feet lower relative to the 2013 data, -5.55 feet lower relative to the 2014 data, and -3.78 feet lower relative to the 2015 data. These changes are attributed to natural temporal variations in recharge from precipitation, such as the below-normal precipitation since the last monitoring round and the increased recharge directly upgradient of the Landfill since 2005 resulting from the demolition work at the former Cerro Wire property.

Comparison of the current ground water-contour maps (Figures 2, 3 and 4) to previous post-closure ground water-contour maps indicates that, overall, ground water-flow directions are similar. One notable difference is that during the period from 2005 through 2008, ground water-flow directions in the shallow and intermediate zones of the Magothy Aquifer showed less convergence downgradient of the Landfill. This difference is attributed to the fact that the water-table elevation rose at a faster than normal rate during that period, which temporarily masked the influence of the buried glacial valley on ground water-flow patterns. The other notable difference is that in 2011 and 2012, water-level contours in the shallow and intermediate zones of the aquifer beneath the eastern half of the Landfill extended further south (upgradient) than is typically observed. This difference is attributed to the above-normal infiltration from the hurricanes and nor'easters that occurred earlier in these years.

Table 7  
Changes in Ground-Water Elevations  
Syosset Landfill 2016 Annual Post-Closure Ground Water-Monitoring Report

Well Number	2003 WL Elev.	2005 WL Elev.	2006 WL Elev.	2007 WL Elev.	2008 WL Elev.	2009 WL Elev.	2010 WL Elev.	2011 WL Elev.	2012 WL Elev.	2013 WL Elev.	2014 WL Elev.	2015 WL Elev.	2016 WL Elev.	Δ Elev. '15' to '16	Δ Elev. '14 to '16	Δ Elev. '13 to '16	Δ Elev. '12 to '16	Δ Elev. '11 to '16	Δ Elev. '10 to '16	Δ Elev. '09 to '16	Δ Elev. '08 to '16	Δ Elev. '07 to '16	Δ Elev. '06 to '16	Δ Elev. '05 to '16	Δ Elev. '03 to '16
<b>On-Site Wells:</b>																									
SY-1	77.63	79.59	84.87	86.16	85.87	84.63	87.04	88.63	86.20	85.02	84.86	82.78	78.74	-4.04	-6.12	-6.28	-7.46	-9.89	-8.30	-5.89	-7.13	-7.42	-6.13	-0.85	1.11
SY-1D	77.16	79.27	84.62	85.87	85.32	84.48	86.94	88.34	86.13	84.89	84.47	82.63	78.79	-3.84	-5.68	-6.10	-7.34	-9.55	-8.15	-5.69	-6.53	-7.08	-5.83	-0.48	1.63
SY-2R	76.65	78.62	84.06	85.35	84.73	83.91	86.48	87.95	85.81	84.36	83.95	82.15	78.30	-3.85	-5.65	-6.06	-7.51	-9.65	-8.18	-5.61	-6.43	-7.05	-5.76	-0.32	1.65
SY-2D	76.35	78.41	83.31	85.02	84.57	83.61	86.30	87.67	85.60	84.15	83.64	81.92	78.14	-3.78	-5.50	-6.01	-7.46	-9.53	-8.16	-5.47	-6.43	-6.88	-5.17	-0.27	1.79
SY-3	76.77	78.46	84.09	85.27	84.85	83.98	86.70	88.16	85.97	84.35	84.10	82.22	78.36	-3.86	-5.74	-5.99	-7.61	-9.80	-8.34	-5.62	-6.49	-6.91	-5.73	-0.10	1.59
SY-3D	76.04	77.94	83.53	84.74	84.28	83.46	86.14	87.44	85.47	83.86	83.28	81.67	77.92	-3.75	-5.36	-5.94	-7.55	-9.52	-8.22	-5.54	-6.36	-6.82	-5.61	-0.02	1.88
SY-3DD	75.43	77.67	83.24	84.41	84.05	83.25	85.91	86.94	85.22	83.59	82.82	81.31	77.66	-3.65	-5.16	-5.93	-7.56	-9.28	-8.25	-5.59	-6.39	-6.75	-5.58	-0.01	2.23
SY-4	78.04	79.71	84.80	86.24	85.69	84.91	87.40	90.19	86.79	85.55	85.11	83.15	79.31	-3.84	-5.80	-6.24	-7.48	-10.88	-8.09	-5.60	-6.38	-6.93	-5.49	-0.40	1.27
SY-6	77.92	79.98	84.96	86.40	85.88	85.13	87.43	87.84	85.63	85.65	85.16	83.20	79.35	-3.85	-5.81	-6.30	-6.28	-8.49	-8.08	-5.78	-6.53	-7.05	-5.61	-0.63	1.43
SY-7	NA	NA	NA	86.83	86.27	85.48	87.71	89.21	86.82	85.91	85.90	83.64	79.88	-3.76	-6.02	-6.03	-6.94	-9.33	-7.83	-5.60	-6.39	-6.95	NA	NA	NA
SY-8	77.34	78.62	84.40	98.91*	85.28	97.62*	87.02	109.06*	86.23	84.55	84.61	82.56	78.60	-3.96	-6.01	-5.95	-7.63	NA	-8.42	NA	-6.68	NA	-5.80	-0.02	1.26
SY-9	NA	NA	86.21	87.57	87.16	86.31	88.60	88.73	86.44	85.53	85.13	83.11	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Off-Site Wells:</b>																									
PK-10S	75.84	77.95	83.38	84.52	84.12	83.24	85.98	87.20	85.31	83.7	83.22	81.46	77.77	-3.69	-5.45	-5.93	-7.54	-9.43	-8.21	-5.47	-6.35	-6.75	-5.61	-0.18	1.93
PK-10I	75.31	77.47	83.01	84.12	83.78	82.89	85.57	86.69	84.88	83.27	82.67	81.00	77.31	-3.69	-5.36	-5.96	-7.57	-9.38	-8.26	-5.58	-6.47	-6.81	-5.70	-0.16	2.00
PK-10D	75.32	77.45	83.04	84.10	83.72	82.86	85.55	86.63	84.86	83.25	82.57	80.97	77.32	-3.65	-5.25	-5.93	-7.54	-9.31	-8.23	-5.54	-6.40	-6.78	-5.72	-0.13	2.00
RW-12I	74.99	77.07	82.57	83.65	83.32	82.5	85.28	86.32	84.64	82.90	82.21	80.70	77.04	-3.66	-5.17	-5.86	-7.60	-9.28	-8.24	-5.46	-6.28	-6.61	-5.53	-0.03	2.05
RW-12D	74.66	76.76	82.46	83.57	83.29	82.46	85.25	86.27	84.58	82.82	82.06	80.59	76.97	-3.62	-5.09	-5.85	-7.61	-9.30	-8.28	-5.49	-6.32	-6.60	-5.49	0.21	2.31
RB-11S	76.71	78.57	83.85	85.16	85.28	83.78	86.33	87.65	85.4	84.04	83.91	81.95	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RB-11I	NA	77.58	82.88	84.20	83.82	82.84	85.48	86.61	84.74	83.22	82.56	80.99	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RB-11D	75.55	77.74	83.26	84.34	83.95	83.07	85.64	86.67	84.87	83.32	82.6	81.16	77.47	-3.69	-5.13	-5.85	-7.40	-9.20	-8.17	-5.60	-6.48	-6.87	-5.79	-0.27	1.92
<b>Averages:</b>														-3.78	-5.55	-6.01	-7.42	-9.49	-8.20	-5.60	-6.47	-6.89	-5.66	-0.23	1.75

**Notes:**

WL Elev. - Water-level elevation, in feet above Mean Sea Level.

Δ Elev. - Change in water-level elevation, in feet.

\* - These water-level data for Well SY-8 appear to be anomalous, and were not used.

NM - Not measured.

NA - Not available.

## 5.2 Temporal Variation in Ground-Water Quality

The 2016 ground water-quality results are also consistent with the previous post-closure monitoring results and the OU-1 and OU-2 RI results; and continue to indicate that the Landfill is not a significant source of VOCs or toxic metals, but that relatively minor Landfill-related impacts are present in Off-Site Downgradient Well PK-10I. Moreover, based on comparison of the results for on-site and off-site wells, and ground water-flow directions, the elevated levels of VOCs and certain leachate indicator and inorganic parameters at Well Cluster RW-12 do not appear to be Landfill-related. The gasoline-related VOCs detected in Well PK-10S in 2003 and 2008 were not detected in 2016, although the chlorobenzene concentration in this well did increase relative to last year. Semivolatile organic compounds, pesticides and polychlorinated biphenyls were not detected during the July 2003 initial (baseline) post-closure monitoring round, and with USEPA approval samples are no longer collected and analyzed for these parameters.

The 2016 total VOC results are compared to previous results in Table 8. Review of Table 8 indicates that relative to 2015, total VOC concentrations were similar or slightly lower in every well except Off-Site Downgradient Wells PK-10I, RW-12I and RW-12D. In these three wells, total VOC concentrations increased relative to 2015 but are still consistent with the historical results for these wells. Overall, total VOC concentrations in the downgradient wells continue to exhibit stable or decreasing trends. Moreover, no exceedances of a VOC ground water-quality standard or guidance value has occurred in an on-site well since 2003.

The 2016 exceedances for leachate indicator parameters are compared to previous exceedances in Table 9. Review of Table 9 indicates that these exceedances were similar to last year. Overall, the parameters for which exceedances are noted have been stable or decreasing over time in every well. This finding indicates that, with respect to exceedances of the ground-water standards and guidance values for leachate indicator parameters, ground water-quality conditions downgradient of the Landfill have been relatively consistent since 1993. Moreover, the relatively small number of parameters listed in Table 9 demonstrates that the Landfill is not a significant source of Part 360 leachate indicator parameters at concentrations exceeding the Class GA ground water-quality standards or guidance values.

With respect to metals/inorganic parameters, the exceedances noted in the filtered samples from each well since 1993 are compared in Table 10. The results for the filtered samples are utilized because LKB noted that there were marked differences in the total results versus the dissolved results for certain samples collected during the OU-2 RI. This most likely was due to the presence of entrained sediment in the unfiltered samples as they were not collected utilizing a low-flow method. For this reason, only the results for the filtered samples are compared.

Review of Table 10 indicates that the overall distribution of exceedances for dissolved metals/inorganic parameters is similar for all 13 post-closure monitoring rounds since 2003, particularly in the off-site downgradient wells. Taken as a whole, the results of this

Table 8  
Comparison of Current Total VOC Results to Previous Results  
Syosset Landfill 2016 Annual Post-Closure Ground Water-Monitoring Report

Well Number	Dec. 1993	Jul. 2003	Dec. 2005	Dec. 2006	Dec. 2007	Dec. 2008	Nov. 2009	Dec. 2010	Nov. 2011	Dec. 2012	Dec. 2013	Sept. 2014	Dec. 2015	Dec. 2016
	Total VOC Results	Total VOC Results	Total VOC Results	Total VOC Results	Total VOC Results	Total VOC Results	Total VOC Results	Total VOC Results	Total VOC Results	Total VOC Results	Total VOC Results	Total VOC Results	Total VOC Results	Total VOC Results
Upgradient Well														
SY-6	0.0	3.6	1.2	1.4	0.0	0.0	0.65	0.5	1.8	0.4	0.0	0.0	0.5	0.0
On-Site Downgradient Wells														
SY-2R	0.6	3.6	0.0	0.2	0.0	4.2	0.0	0.0	0.0	0.0	0.72	0.0	0.0	0.0
SY-2D	7.9	2.8	4.9	3.9	2.1	1.5	0.0	0.0	0.3	0.0	0.2 / 0.0*	0.0	0.0	0.24
SY-3	10.7	23.9	0.7	1.6	5.5	74	1.3	1.8	4.5 / 0.8*	0.0	1.26	0.0	0.74	1.04
SY-3D	11.4	20.9	6	3.8	3.9	2.2	1.9	8.0	2.9	0.7 / 0.0*	0.42	0.0	1.58	1.01 / 0.95*
SY-3DD	0.0	10	0.0	0.6	0.0	0.0	1.9	11.2	2.9	0.44	0.0	0.0	2.03	0.57
Off-Site Downgradient Wells														
PK-10S	13.9	218	0.3	0.5	0.0	102	0.5	0.0	0.0	0.0	0.0	0.0	1.1	0.0
PK-10I	15.6	33.4	17	15	11	13.6	7.7	5.3	3.4	2.7	4.34	2.2	4.3	7.99
PK-10D	6.5	21.8	1.8	2.0	3.1	10.2	5.1	5.4	4.4	3.9	1.69	2.7	4.27	5.18
RW-12I	260	154	134	88	72.6	72.2	62.4	66.4	53.1	69.5	62.5	30.7	41.0	53.90
RW-12D	31.9	200	111	73	65.8	87.6	60.8	41.3	64.0	80.5	64.4	34.8	63.2	96.46

Notes:

Results are in units of ug/L.

Totals include estimated concentrations, totals for 2003-2010 include TICs.

\* = Results for duplicate sample.

Table 9  
Comparison of Current Leachate Indicator Parameter Exceedances to Previous Exceedances  
Syosset Landfill 2016 Annual Post-Closure Ground Water-Monitoring Report

Well Number	Exceedances In July/Dec.'93	Exceedances In July 2003	Exceedances In Dec. 2005	Exceedances In Dec. 2006	Exceedances In Dec. 2007	Exceedances In Dec. 2008	Exceedances In Nov. 2009	Exceedances In Dec. 2010	Exceedances In Nov. 2011	Exceedances In Dec. 2012	Exceedances In Dec. 2013	Exceedances In Sept. 2014	Exceedances In Dec. 2015	Exceedances In Dec. 2016
Upgradient Well														
SY-6	None Noted	Color	None Noted	None Noted	None Noted	None Noted	Phenols	Phenols	None Noted	None Noted	None Noted	None Noted	Phenols	None Noted
On-Site Downgradient Wells														
SY-2R	Chloride and TDS	Color	Bromide (Slight)	Chloride and TDS	Chloride and TDS	Bromide Chloride and TDS	Chloride and TDS	None Noted	None Noted	Chloride and TDS	None Noted	Chloride and TDS	Chloride Phenols and TDS	Chloride and TDS
SY-2D	Ammonia	Ammonia	Ammonia	Ammonia (Very Slight)	Ammonia (Very Slight)	None Noted	None Noted	TDS	Chloride and TDS	Chloride and TDS	Chloride and TDS	Chloride and TDS	Chloride Phenols and TDS	Chloride and TDS
SY-3	Ammonia Chloride and TDS	Ammonia Chloride Color and TDS	Ammonia Bromide Chloride and TDS	Ammonia Chloride and TDS	Ammonia Chloride and TDS	Ammonia and TDS	Ammonia and Color	Ammonia Color and TDS	Ammonia Color, Phenols and TDS	Ammonia Color and TDS	Ammonia Color and TDS	Ammonia Color and TDS	Ammonia, Color Phenols and TDS	Ammonia, Color and TDS
SY-3D	Ammonia Chloride and TDS	Ammonia Bromide Chloride and TDS	Ammonia Bromide Chloride and TDS	Ammonia Chloride and TDS	Ammonia Chloride and TDS	Ammonia Chloride and TDS	Ammonia Chloride, Color and TDS	Ammonia Chloride, Color and TDS	Ammonia Chloride Color, Phenols and TDS	Ammonia Chloride Color and TDS	Ammonia Chloride Color and TDS	Ammonia Chloride Color and TDS	Ammonia Chloride Color, Phenols and TDS	Ammonia Chloride Color and TDS
SY-3DD	None Noted	Color	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	Phenols	None Noted	None Noted	None Noted	None Noted	None Noted
Off-Site Downgradient Wells														
PK-10S	Sulfate*	Color	None Noted	None Noted	None Noted	None Noted	Color	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	Phenols
PK-10I	Ammonia Chloride and TDS	Ammonia Color and TDS	Ammonia Chloride and TDS	Ammonia Chloride and TDS	Ammonia Chloride and TDS	Ammonia Bromide Chloride and TDS	Ammonia Chloride and TDS	Ammonia Chloride and TDS	Ammonia Chloride and TDS	Ammonia Chloride Phenols and TDS	Ammonia Chloride and TDS	Ammonia Chloride and TDS	Ammonia Chloride and TDS	Ammonia Bromide Chloride and TDS
PK-10D	None Noted	None Noted	Color	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	Phenols	None Noted	None Noted	Phenols	None Noted
RW-12I	Ammonia	Ammonia Bromide and TDS	Ammonia and Color	Ammonia Bromide and TDS	Ammonia Bromide and TDS	Ammonia Bromide and TDS	Ammonia Bromide and TDS	Ammonia Bromide and TDS	Ammonia Bromide and TDS	Ammonia Bromide Phenols and TDS	Ammonia Bromide Phenols and TDS	Ammonia Bromide and TDS	Ammonia, Color Phenols and TDS	Ammonia Bromide and TDS
RW-12D	Ammonia and TDS	Ammonia and TDS	Ammonia Color and TDS	Ammonia and TDS	Ammonia and TDS	Ammonia and TDS	Ammonia and TDS	Ammonia and TDS	Ammonia and TDS	Ammonia Phenols and TDS	Ammonia and TDS	Ammonia Phenols and TDS	Ammonia and TDS	Ammonia Bromide and TDS

Notes:

\* = Not Landfill-related.

Table 10  
Comparison of Filtered Sample Inorganic Parameter Exceedances to Previous Exceedances  
Syosset Landfill 2016 Annual Post-Closure Ground Water-Monitoring Report

Well Number	Exceedances In July/Dec.'93	Exceedances In July 2003	Exceedances In Dec. 2005	Exceedances In Dec. 2006	Exceedances In Dec. 2007	Exceedances In Dec. 2008	Exceedances In Nov. 2009	Exceedances In Dec. 2010	Exceedances In Nov. 2011	Exceedances In Dec. 2012	Exceedances In Dec. 2013	Exceedances In Sept. 2014	Exceedances In Dec. 2015	Exceedances In Dec. 2016
Upgradient Well														
SY-6	Sodium	None Noted	Iron	Iron	Iron and Zinc	Iron and Zinc	Iron and Zinc	Zinc	Antimony and Zinc	Zinc	None Noted	Zinc	Iron and Zinc	None Noted
On-Site Downgradient Wells														
SY-2R	Iron and Sodium	Sodium	Sodium	Sodium	Sodium	Sodium	Sodium and Thallium	Sodium	Antimony and Sodium	Sodium	Sodium	Sodium	Beryllium, Nickel and Sodium	Beryllium and Sodium
SY-2D	Sodium	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Manganese Sodium and Thallium	Manganese and Sodium	Manganese Sodium and Thallium	Manganese and Sodium	Antimony Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium
SY-3	Antimony Arsenic, Iron Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Iron Manganese and Sodium	Iron Manganese and Sodium	Arsenic, Iron Manganese and Sodium	Arsenic, Iron Manganese Sodium and Thallium	Arsenic, Iron Manganese and Sodium	Antimony Arsenic, Iron Manganese and Sodium	Arsenic, Iron Manganese and Sodium	Arsenic, Iron Manganese and Sodium	Arsenic, Iron Manganese and Sodium	Arsenic, Iron Manganese and Sodium	Arsenic, Iron Manganese and Sodium
SY-3D	Iron Magnesium Manganese and Sodium	Magnesium Manganese and Sodium	Manganese and Sodium	Iron Magnesium Manganese and Sodium	Iron Magnesium Manganese and Sodium	Arsenic, Iron Magnesium Manganese and Sodium	Arsenic, Iron Manganese Sodium and Thallium	Arsenic, Iron Manganese and Sodium	Antimony, Iron Manganese and Sodium	Arsenic, Iron Manganese and Sodium	Arsenic, Iron Manganese and Sodium	Arsenic, Iron Manganese and Sodium	Arsenic, Iron Manganese Sodium and Thallium	Arsenic, Iron Manganese and Sodium
SY-3DD	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	Thallium	None Noted
Off-Site Downgradient Wells														
PK-10S	Iron and Sodium	None Noted	Selenium (slight)	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted
PK-10I	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Manganese Sodium and Thallium	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium	Manganese and Sodium
PK-10D	Nickel*	Nickel*	Mercury* and Nickel*	Nickel* and Sodium (slight)	Mercury* and Sodium (slight)	Mercury* and Sodium (slight)	Mercury* and Sodium	Mercury* and Sodium	Mercury* and Sodium	Mercury* and Sodium	Mercury* and Sodium	Mercury* and Sodium	Mercury*, Iron and Sodium	Mercury* and Sodium
RW-12I	Sodium	Sodium	Sodium	Magnesium and Sodium	Magnesium and Sodium	Magnesium and Sodium	Magnesium Sodium and Thallium	Iron Magnesium and Sodium	Magnesium and Sodium	Magnesium and Sodium	Magnesium and Sodium	Magnesium and Sodium	Magnesium and Sodium	Magnesium and Sodium
RW-12D	Sodium	Sodium	Sodium	Sodium	Sodium	Sodium	Sodium	Sodium	Sodium	Sodium	Sodium	Sodium	Sodium	Sodium

**Notes:**

\* = Not Landfill-related.

The 2003 iron results were qualified as rejected by data validator. The 2003 iron concentrations in Wells SY-3, SY-3D, RW-12I and RW-12D likely exceeded the limit but are not listed above. Prior to 2006, the limit for arsenic was 25 ug/L. In 2006 it was lowered to 10 ug/L (new MCL). The 2003 arsenic concentrations in Wells SY-3 and SY-3D exceeded the current limit.

comparison indicate that the Landfill is not a significant source of the most toxic metals, and is only a relatively minor source of the other metals/inorganic parameters at concentrations exceeding the Class GA ground-water standards and guidance values.

The mercury detected in Well PK-10D in 2016 is not Landfill-related because mercury has not been detected in any of the on-site wells, and in general parameters attributed with the Landfill have not been detected at elevated concentrations in Well PK-10D. Moreover, as noted previously, mercury is known to occur naturally in the stratigraphic equivalent of the Magothy Formation in New Jersey based on a study by the United States Geological Survey.

### **5.3 Results of Trend Analyses**

Trend analyses were performed to further assess post-closure changes in ground water-quality conditions. The trend analyses were performed for nine NYSDEC Part 360 leachate indicator parameters that have been detected on a relatively consistent basis during the post-closure monitoring rounds. A series of nine graphs showing the trends for each parameter in all wells from 2003 through 2016 is provided in Appendix C. The 2003 through 2016 results for these nine parameters are summarized in Table 11. The earlier results from the 1988 OU-1 RI ground water-monitoring events and the 1993 OU-2 RI ground water-monitoring events, if available for a parameter and/or well, are also included in Table 11. Table 11 also identifies long-term trends (based on all available data) and trends since 2005 (to differentiate changes that may be related to the 2005 demolition work at the upgradient former Cerro Wire property) for each parameter and well, and summarizes the numbers of parameters with flat, decreasing or increasing trends in each well for both time frames.

Review of the 2003 to 2016 trend graphs in Appendix C, and the Long-Term Trend Summary in Table 11, indicates that over the long-term, a majority of the parameters in a majority of the wells exhibit flat or decreasing trends. In fact, only Well RW-12I has more parameters with increasing trends than flat and decreasing trends combined over the long-term. This distinction is further indication that ground water-quality conditions at this off-site downgradient location are not Landfill-related.

Review of the Trend Since 2005 Summary in Table 11 shows that since 2005, no wells have more parameters with increasing trends than flat or decreasing trends combined. Based on this finding, the short-term impacts previously attributed to the increased recharge associated with the demolition work at the former Cerro Wire property in 2005 have dissipated, as predicted in the 2008 Report, and ground-water quality conditions downgradient of the Landfill continue to be stable or improving over time.

Table 11  
Trend Analysis Summary for Selected Part 360 Leachate Indicator Parameters  
Syosset Landfill 2016 Annual Post-Closure Ground Water-Monitoring Report

(Page 1 of 3)

Date*	Upgradient Well SY-6	Downgradient Wells									
		On-Site					Off-Site				
		SY-2R	SY-2D	SY-3	SY-3D	SY-3DD	PK-10S	PK-10I	PK-10D	RW-12I	RW-12D
Alkalinity											
OU1 RI 5/2/1988	72	26	270	880	1,300	N/A	N/A	N/A	N/A	N/A	N/A
OU1 RI 6/6/1988	66	26	280	890	1,200	N/A	N/A	N/A	N/A	N/A	N/A
OU2 RI 11/2/1993	195	39	100	716	1,180	14	23	404	25	167	74
OU2 RI 12/1/1993	202	35	82	727	1,020	9.6	24	419	18	162	80
6/26/2003	99	11	66	710	140	6.0	11	350	22	100	170
12/27/2005	22	13	71	150	510	8.8	12	320	22	680	230
12/27/2006	48	12	66	190	390	7.8	12	270	23	680	210
12/21/2007	56	8.8	56	180	350	6.6	6.0	220	22	950	180
12/29/2008	48	18	66	250	310	6.0	10	150	24	950	140
11/3/2009	57	30	52	200	270	6.32	12	130	28	510	110
12/6/2010	44	22	46	190	240	8.64	13	95	26	980	70
11/15/2011	51	11	45	160	220	5.9	10	84	24	1,000	98
12/13/2012	55	17	42	140	220	6	11	76	20	920	93
11/11/2013	50.1	9.84	37.7	172	217	8.24	13.3	90.3	22.7	876	86.5
9/24/2014	49.1	9.92	34.6	180	232	6.16	12.2	91	24.2	858	87.3
12/4/2015	69.8	10.2	31.1	164	244	4.56	11.6	104	22.5	845	89.8
12/8/2016	109	29.2	31.9	366	466	5.04	9.36	122	20.8	805	101
Long-Term Trend: Trend Since 2005:	Flat Inc.	Flat Flat	Dec. Dec.	Dec. Inc.	Dec. Dec.	Flat Flat	Flat Flat	Dec. Dec.	Flat Flat	Inc. Inc.	Flat Dec.
Ammonia											
OU1 RI 5/2/1988	<0.05	<0.05	18	91	130	N/A	N/A	N/A	N/A	N/A	N/A
OU1 RI 6/6/1988	<0.05	<0.05	17	90	130	N/A	N/A	N/A	N/A	N/A	N/A
OU2 RI 11/2/1993	0.06	<0.04	4.9	68	146	<0.04	0.35	39	<0.04	16	<0.04
OU2 RI 12/1/1993	0.09	0.26	7.0	123	84	<0.04	0.05	38	<0.04	15	0.11
6/26/2003	0.29	0.26	2.7	61	9.9	0.3	0.2	32	0.26	4.7	4.8
12/27/2005	<0.20	<0.20	2.8	4.3	40	<0.20	<0.20	21	<0.20	55	8.9
12/27/2006	<0.20	0.70	2.1	4.3	39	<0.20	<0.20	19	<0.20	47	6.8
12/21/2007	0.23	0.33	2.2	7.5	40	<0.20	<0.20	15	<0.20	84	8.1
12/29/2008	<0.20	0.33	1.9	9.7	38	0.20	0.35	15	0.24	89	9.9
11/3/2009	0.27	0.29	1.77	4.38	3.92	0.20	0.30	4.51	0.27	4.08	5.90
12/6/2010	0.05	0.1	1.4	9.8	21	0.12	0.04	3.2	0.12	74	3.1
11/15/2011	<0.03	<0.03	0.74	7.96	26.9	0.051	<0.03	3.58	<0.03	100	5.26
12/13/2012	0.07	0.091	0.751	7.78	15.7	0.09	<0.05	4.17	0.049	83.1	6.1
11/11/2013	0.073	0.188	0.604	8.84	15.2	0.15	0.075	3.2	0.12	73.6	5.7
9/24/2014	0.062 J	<0.05	0.378	8.1	14.5	0.042 J	<0.05	4.93	<0.05	76.5	5.79
12/4/2015	0.113	0.093 J	0.224	7.6	12.5	0.066 J	0.063 J	4.18	0.13	78.4	5.09
12/8/2016	0.083 J	0.045	0.073 J	10.9 J	16.3 J	0.042 J	0.09 J	5.21	0.067 J	82.5	5.75
Long-Term Trend: Trend Since 2005:	Flat Flat	Flat Flat	Dec. Dec.	Dec. Flat	Dec. Dec.	Flat Flat	Flat Flat	Dec. Dec.	Flat Flat	Inc. Flat	Flat Flat
Chemical Oxygen Demand											
OU1 RI 5/2/1988	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OU1 RI 6/6/1988	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OU2 RI 11/2/1993	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OU2 RI 12/1/1993	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/26/2003	2.5	2.5	2.5	45	6	2.5	2.5	29	2.5	2.5	13
12/27/2005	38	2.5	2.5	5	25	2.5	2.5	2.5	2.5	39	17
12/27/2006	2.5	2.5	2.5	8	27	2.5	2.5	15	2.5	46	27
12/21/2007	2.5	2.5	2.5	38	21	2.5	2.5	9.13	2.5	65	18
12/29/2008	5.92	5.92	2.5	26	22	2.5	2.5	2.5	2.5	16	18
11/3/2009	2.5	5.98	2.5	38	26	2.5	2.5	5.98	2.5	67	9.83
12/6/2010	2.5	2.5	2.5	10.8	18.1	2.5	2.5	2.5	2.5	62.2	2.5
11/15/2011	1.20	1.20	3.79	11.6	14.6	1.20	4.77	5.75	2.81	71.4	16.5
12/13/2012	1.255	5.56	6.55	2.58	17.3	1.25	1.25	1.25	1.25	54.1	7.68
12/4/2015	3.03	4.97	4	11.8	18.5	2.5	2.5	7.88	2.5	52.5	9.82
12/8/2016	2.5	2.5	2.5	5.76	5.76	2.5	2.5	9.76	2.5	52.8	10.8
Long-Term Trend: Trend Since 2005:	Flat Flat	Flat Flat	Flat Flat	Dec. Flat	Dec. Dec.	Flat Flat	Flat Flat	Dec. Flat	Flat Flat	Flat Flat	Dec. Dec.
Chloride											
OU1 RI 5/2/1988	30	52	220	99	340	N/A	N/A	N/A	N/A	N/A	N/A
OU1 RI 6/6/1988	20	57	200	110	330	N/A	N/A	N/A	N/A	N/A	N/A
OU2 RI 11/2/1993	43	449	108	136	269	4.2	15	291	14	106	122
OU2 RI 12/1/1993	34	613	97	176	265	4.5	14	287	14.2	118	139
6/26/2003	19	140	120	380	300	3.5	7.8	19	19	26	150
12/27/2005	18	180	160	380	510	4.1	10	340	47	190	160
12/27/2006	3.4	470	140	430	680	3.3	8.9	350	64	170	190
12/21/2007	7.2	480	150	490	770	3.9	11	390	90	240	190
12/29/2008	10	640	170	210	820	4.3	7.2	370	91	170	170
11/3/2009	7.8	420	200	160	910	4.1	7.9	450	120	190	200
12/6/2010	14	160	230	170	860	4.71	9.09	440	110	170	170
11/15/2011	4.7	220	310	180	820	4.5	13	490	110	170	200
12/13/2012	12	400	320	230	800	4.6	14	470	120	170	200
11/11/2013	9.54	218	291	228	820	4.15	12.5	469	118	160	199
9/24/2014	7.47	322	278	200	749	4.22	14.6	504	133	163	207
12/4/2015	5.14	399	252	190	524	4.5	11.8	506	128	146	197
12/8/2016	4.94	398	266	199	549	4.75	11.8	556	119	147	210
Long-Term Trend: Trend Since 2005:	Dec. Flat	Flat Flat	Inc. Inc.	Flat Dec.	Inc. Flat	Flat Flat	Flat Flat	Inc. Inc.	Inc. Inc.	Flat Dec.	Inc. Flat



Table 11  
Trend Analysis Summary for Selected Part 360 Leachate Indicator Parameters  
Syosset Landfill 2016 Annual Post-Closure Ground Water-Monitoring Report

(Page 2 of 3)

Date*	Upgradient Well SY-6	Downgradient Wells									
		On-Site					Off-Site				
		SY-2R	SY-2D	SY-3	SY-3D	SY-3DD	PK-10S	PK-10I	PK-10D	RW-12I	RW-12D
Hardness											
OU1 RI 5/2/1988	100	50	150	330	440	N/A	N/A	N/A	N/A	N/A	N/A
OU1 RI 6/6/1988	80	54	120	370	460	N/A	N/A	N/A	N/A	N/A	N/A
OU2 RI 11/2/1993	176	138	68.4	362	470	7.6	68.8	285	12.2	169	132
OU2 RI 12/1/1993	181	121	58.4	348	468	6.6	67.8	312	12.2	164	144
6/26/2003	120	54	51	200	490	6.0	53	220	22	42	250
12/27/2005	36	58	69	96	271	10	42	175	49	348	260
12/27/2006	52	178	70	350	359	6.1	42	187	70	350	317
12/21/2007	50	83	74	207	365	5.0	39	195	90	479	316
12/29/2008	100	109	96	185	330	11	46	180	114	453	276
11/3/2009	102	57	84	159	273	7	46	162	110	412	223
12/6/2010	66	36	97	159	266	7	43	165	111	409	208
11/15/2011	59.9	84.4	92.3	136	220	7.3	43.4	150	109	410	249
12/13/2012	77.3	127	121	140	112	6.68	42.3	166	112	6.62	110
11/11/2013	64	47.4	92.7	122	229	5.63	39.8	157	101	371	246
9/24/2014	85.13	124	76	131	211	5.73	38.9	160	117	347	253
12/4/2015	135	128	69.7	139	190	6.36 J	40.2	197	127	427	308
12/8/2016	156	105	76.1	166	192	6.76 J	39.4	181	99.2	357	273
Long-Term Trend: Trend Since 2005:	Flat Inc.	Flat Flat	Flat Flat	Dec. Dec.	Dec. Dec.	Flat Flat	Dec. Flat	Dec. Flat	Inc. Inc.	Inc. Flat	Inc. Flat
Sulfate											
OU1 RI 5/2/1988	50	50	47	42	22	N/A	N/A	N/A	N/A	N/A	N/A
OU1 RI 6/6/1988	40	54	68	16	14	N/A	N/A	N/A	N/A	N/A	N/A
OU2 RI 11/2/1993	10	56	23	33	27	1.8	40	89	16	31	32
OU2 RI 12/1/1993	20	58	17	26	23	11.9	51	110	12	34	54
6/26/2003	12	29	19	20	64	<1.0	1,800	21	2.8	<1.00	18
12/27/2005	<1.0	29	22	40	41	<1.0	29	67	<1.0	79	120
12/27/2006	5.9	94	76	90	96	1.5	24	120	<25	120	170
12/21/2007	6.5	39	13	36	42	1.5	21	46	8.1	64	130
12/29/2008	75	36	16	38	45	0.7	22	1.5	8.4	58	130
11/3/2009	54	33	12	36	41	1.6	27	28	9.64	61	190
12/6/2010	20	34	13	35	41	2.21	23	37	10	63	220
11/15/2011	19	27	14	34	40	2.1	20	37	10	64	180
12/13/2012	20	30	17	39	41	2.1	18	37	12	65	180
11/11/2013	15.8	33.8	13.2	43.1	44.7	2.01	17.8	39.3	10.7	61.7	230
9/24/2014	47.2	31.1	11	37.3	46.6	1.93	18.3	39.6	13.6	65.3	191
12/4/2015	72.7	26.8	11.1	39.1	45.9	1.83	17.1	36.6	17.9	62.1	204
12/8/2016	42.3	34.3	10.7	42.2	47.4	1.95	18.2 J	35.9 J	20.4 J	71 J	199 J
Long-Term Trend: Trend Since 2005:	Flat Flat	Flat Flat	Dec. Dec.	Flat Flat	Flat Flat	Flat Flat	Dec. Dec.	Dec. Dec.	Flat Inc.	Inc. Flat	Inc. Inc.
Total Dissolved Solids (TDS)											
OU1 RI 5/2/1988	210	210	670	820	1,400	N/A	N/A	N/A	N/A	N/A	N/A
OU1 RI 6/6/1988	180	230	630	830	1,400	N/A	N/A	N/A	N/A	N/A	N/A
OU2 RI 11/2/1993	287	861	282	726	1,240	44	162	918	87	345	320
OU2 RI 12/1/1993	323	850	299	757	1,400	54	181	1,020	85	408	511
6/26/2003	175	360	334	1,373	821	125	172	1,004	114	177	536
12/27/2005	64	490	380	790	1,200	42	130	940	160	940	710
12/27/2006	69	930	320	950	1,400	26	120	880	200	890	750
12/21/2007	83	750	330	1,000	1,400	11	85	840	210	1,000	680
12/29/2008	170	1,100	380	650	1,700	10	90	880	270	1,100	690
11/3/2009	190	800	390	470	1,800	44	100	910	300	1,100	630
12/6/2010	131	474	505	512	1,680	30	95	930	275	1,300	631
11/15/2011	99	458	596	511	1,620	24	95	985	301	1,470	684
12/10/2012	131	753	653	611	1,570	31	89	950	314	1,310	725
11/11/2013	94	417	602	708	1,800	9	96	944	298	1,110	694
9/24/2014	158	720	564	556	1,472	29	105	997	372	994	756
12/4/2015	215	773	503	545	1,236	27	90	1,074	324	1,027	773
12/8/2016	198	787	554	538	1,138	28	86	1,175	307	974	805
Long-Term Trend: Trend Since 2005:	Flat Inc.	Inc. Dec.	Flat Inc.	Dec. Dec.	Flat Dec.	Flat Flat	Dec. Dec.	Flat Inc.	Inc. Inc.	Inc. Flat	Inc. Inc.
Total Kjeldhal Nitrogen											
OU1 RI 5/2/1988	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OU1 RI 6/6/1988	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OU2 RI 11/2/1993	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OU2 RI 12/1/1993	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/26/2003	<1.00	<1.00	2.49	93	11	<1.00	<1.00	37	<1.00	3.53	5.12
12/27/2005	<0.50	<0.50	<0.50	3.8	51	<0.50	<0.500	21	<0.500	40	7
12/27/2006	0.57	0.66	1.32	2.61	15	0.63	0.56	6.16	0.59	19	16
12/21/2007	1.5	1.5	4.3	10	49	1.1	1.4	18	1.6	95	9.7
12/29/2008	1.5	1.5	3.8	11	40	1.6	1.8	12	1.51	100	8.82
11/3/2009	<0.50	<0.50	1.25	13	34	<0.50	<0.50	11	<0.50	55	7.45
12/6/2010	0.486	0.5	1.9	16	40	0.2	0.2	6.9	0.222	140	2.7
11/15/2011	0.307	<0.1	0.758	7.8	25	<0.1	0.1	3.9	0.096	94	5.8
12/13/2012	<0.25	<0.25	0.86	8.1	17	0.1	0.1	3.7	0.22	84	5.2
11/11/2013	0.102	0.181	0.608	8.4	17.5	0.243	<0.25	4.8	0.224	81.5	5.5
9/24/2014	0.208 J	0.23 J	0.588	9.7	14.4	0.172 J	0.152 J	4.89	0.296 J	84.5	5.79
12/4/2015	0.177 J	0.355 J	0.429 J	12.5	16.6	<0.5	0.251 J	4.9	0.432 J	99.4	5.72
12/8/2016	0.338 J	0.354 J	0.228 J	10.8	15.8	0.158 J	0.24 J	4.82	0.196 J	77	5.66
Long-Term Trend: Trend Since 2005:	Flat Flat	Flat Flat	Dec. Dec.	Flat Flat	Flat Flat	Flat Flat	Flat Flat	Dec. Dec.	Flat Flat	Inc. Flat	Flat Flat

Table 11  
Trend Analysis Summary for Selected Part 360 Leachate Indicator Parameters  
Syosset Landfill 2016 Annual Post-Closure Ground Water-Monitoring Report  
(Page 3 of 3)

Date*	Upgradient Well SY-6	Downgradient Wells										
		On-Site					Off-Site					
		SY-2R	SY-2D	SY-3	SY-3D	SY-3DD	PK-10S	PK-10I	PK-10D	RW-12I	RW-12D	
Total Organic Carbon												
OU1 RI 5/2/1988	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OU1 RI 6/6/1988	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OU2 RI 11/2/1993	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OU2 RI 12/1/1993	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/26/2003	1.24	0.74	1.05	17	3.19	<0.40	<0.40	5.17	<0.40	1.27	6.73	
12/27/2005	8.88	1.03	1.31	2.61	9.72	<0.40	0.603	5.21	0.58	17	8.43	
12/27/2006	<0.40	0.5	0.459	2.43	6.51	<0.40	<0.40	3.65	<0.40	16	7.27	
12/21/2007	0.75	1.13	0.88	2.63	6.13	<0.40	0.438	3.18	0.527	3.83	8.14	
12/29/2008	1.49	1.21	1.08	3.55	6.4	<0.40	0.701	2.63	0.885	4.34	7.23	
11/3/2009	2.81	2.13	1.55	7.09	9.57	<0.40	0.721	3.04	1.06	41	7.01	
12/6/2010	1.2	1.1	0.859	3	4.3	0.196	0.416	1.7	0.944	24	3.3	
11/15/2012	0.79	0.88	1	2.6	3.8	0.29	0.82	1.7	1	27	4.5	
12/13/2012	1.2	1.3	1.2	3.7	4.3	0.35	0.71	2.1	1.3	22	5.6	
11/11/2013	1.25	1.2	0.863	4.27	4.1	0.755	0.903	2.33	1.36	22	4.39	
9/24/2014	1.55	1.07	0.84	4.2	5.25	0.236 J	0.566	2.25	1.53	21.9	4.81	
12/4/2015	2.18	1.53	1.05	3.65	5.04	0.705	0.567	2.43	1.37	19.9	4.78	
12/8/2016	2.01	1.94	4.23	4.23	4.91	0.311 J	0.522 J	2.41 J	1.1 J	19.4 J	4.42 J	
Long-Term Trend:	Flat	Flat	Inc.	Flat	Flat	Flat	Flat	Dec.	Flat	Flat	Flat	
Trend Since 2005:	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Dec.	Flat	Flat	Flat	
Long-Term Trend Summary												
Total Flat	8	8	3	4	4	9	6	1	6	3	4	
Total Dec.	1	0	4	5	4	0	3	7	0	0	1	
Total Inc.	0	1	2	0	1	0	0	1	3	6	4	
Trend Since 2005 Summary												
Total Flat	6	8	3	5	4	9	7	2	5	7	5	
Total Dec.	0	1	4	3	4	0	2	5	0	1	2	
Total Inc.	3	0	2	1	0	0	0	2	4	1	2	

Notes:

All results are in units of milligrams per Liter (mg/L).

N/A = Not Available (Well not installed yet, not sampled during monitoring round, or sample not analyzed for that parameter).

\* = Approximate date (Monitoring rounds typically take place over several days).

J = Result qualified as estimated by data validator.

## SECTION 6

### CONCLUSIONS AND RECOMENDATIONS

Based on the above results from the 2016 annual post-closure ground water-monitoring round, LKB concludes the following:

1. The ground water-monitoring system, specifically the existing monitoring well network and modified low-flow purging and sampling method specified in the O&M Manual, continues to provide ground water-flow and ground water-quality data of sufficient quantity and quality to monitor the Landfill during the post-closure period.
2. The Landfill is not a significant source of VOCs or the toxic RCRA/PPL metals, and is only a relatively minor source of certain leachate-related contaminants and the other TAL inorganic parameters at concentrations exceeding Class GA ground-water standards and guidance values.
3. Although arsenic was detected in On-Site Downgradient Wells SY-3 and SY-3D at concentrations exceeding the federal MCL, the fact that arsenic was not detected in the deeper well at this cluster (Well SY-3DD) and was only detected at very low, estimated concentrations in three off-site downgradient wells (Wells PK-10D, RW-12I and RW-12D) indicates that off-site impacts are negligible.
4. Although an exceedance for beryllium occurred in Well SY-2R in 2016, it was relatively low in magnitude and the limit for beryllium is a guidance value rather than an actual standard. Moreover, beryllium was not detected in any of the other wells. Therefore, there are no off-site impacts from beryllium.
5. The low-magnitude exceedance for total chromium in Off-Site Downgradient Well PK-10I is attributed to entrained sediment in the sample because the chromium concentration in the filtered sample from this well was much lower. The low-magnitude exceedance for mercury in Off-Site Downgradient Well PK-10D is attributed to naturally-occurring mercury because mercury has not been detected in the on-site wells, and is known to occur naturally in this geologic formation. Accordingly, there are no Landfill-related impacts from chromium or mercury.
6. Overall, the current results show stable or improving ground water-quality conditions at the downgradient well locations relative to the previous post-closure monitoring rounds, the 1988 OU-1 RI results and the 1993 OU-2 RI results. This finding indicates that the selected remedy has been effective in mitigating ground water-quality impacts associated with the Landfill.

7. Based on the distribution of contaminants in ground water and ground water-flow directions, the majority of the contaminants detected in Well Cluster RW-12 do not appear to be Landfill-related. This conclusion is consistent with the conclusions of previous post-closure monitoring reports and the OU-2 RI Report.
8. Taken as a whole, the results of the 2016 ground water-monitoring round continue to support the de-listing of the Landfill from the NPL, which occurred on April 28, 2005.
9. The stable or improving ground water-quality conditions in the upgradient well and on-site downgradient wells continue to indicate that ground-water conditions have equilibrated following the demolition work at the adjacent former Cerro Wire property in 2005.

In a letter dated March 11, 2016, the Town requested that the USEPA consider reducing the frequency of ground-water monitoring based on the past results. In Section VI of its Fourth Five-Year Review Report, dated February 16, 2017, the USEPA recommended that the frequency of ground-water monitoring be reduced from annually, to every fifth calendar quarter, to provide data once in each season/quarter during the five-year review period. The Town has implemented this recommendation. Accordingly, ground-water monitoring is not required in 2017, and the next round of ground-water monitoring will be performed during the first quarter of 2018.

Based on the above information, LKB recommends that the following work items be implemented during the 2018 annual monitoring round.

1. Remove the dedicated pumps and related equipment from Well Cluster RB-11 prior to the monitoring round to ensure that water-level data can be collected from these wells. The pumps were installed during the OU2 RI, and are no longer utilized. Due to the decline in water levels over time, they are now interfering with the collection of water-level data.
2. Continue to collect the duplicate sample from one of the on-site downgradient wells as these wells exhibit the highest degree of Landfill-related impacts.
3. Continue to collect and dispose of the purged ground water from the off-site downgradient wells, but discharge the purged ground water from the on-site wells onto the ground surface due to the low levels of contaminants encountered.
4. Continue to evaluate ground-water quality conditions at the upgradient well and the on-site downgradient wells for influences related to future development and related construction activities at the former Cerro Wire property which may increase recharge directly upgradient of the Landfill.

## **APPENDIX A**

### **Completed Well Inspection Checklist Forms**

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** SY-1

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>(Presumed, under veg/soil)</u>
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4. Steel Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>On inside of lid</u> _____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>OK</u>
3. Bottom of Well Below Grade	<u>N/A</u>
4. Remarks on Integrity of Casing	<u>OK</u>
5. Depth to Water from Top of PVC	<u>119.74'</u>

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** SY-1D

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>(Presumed, under veg/soil)</u>
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>OK</u>
3. Bottom of Well Below Grade	<u>N/A</u>
4. Remarks on Integrity of Casing	<u>OK</u>
5. Depth to Water from Top of PVC	<u>118.23'</u>

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** SY-2R

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>(Presumed, under veg/soil)</u>
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>OK</u>
3. Bottom of Well Below Grade	<u>N/A</u>
6. Remarks on Integrity of Casing	<u>OK</u>
Depth to Water from Top of PVC	<u>112.56'</u>



**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** SY-2D

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>(Presumed, under veg/soil)</u>
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Casing lid missing</u>
Lock – Intact	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>No Lock</u>
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>OK</u>
3. Bottom of Well Below Grade	<u>N/A</u>
4. Remarks on Integrity of Casing	<u>New Grip-Plug Installed</u>
5. Depth to Water from Top of PVC	<u>112.77'</u>

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** SY-3

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>(Presumed, under veg/soil)</u>
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4. Steel Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>On Cap</u>

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>OK</u>
3. Bottom of Well Below Grade	<u>N/A</u>
4. Remarks on Integrity of Casing	<u>OK</u>
5. Depth to Water from Top of PVC	<u>115.60'</u>

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** SY-3D

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>(Presumed, under veg/soil)</u>
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Inside of Lid</u>

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>OK</u>
3. Bottom of Well Below Grade	<u>N/A</u>
4. Remarks on Integrity of Casing	<u>OK</u>
5. Depth to Water from Top of PVC	<u>116.55'</u>

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** SY-3DD

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>(Presumed, under veg/soil)</u>
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Casing lid hinge broken</u>
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Not locked, broken hinge</u>
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>OK</u>
3. Bottom of Well Below Grade	<u>N/A</u>
4. Remarks on Integrity of Casing	<u>OK</u>
5. Depth to Water from Top of PVC	<u>116.29'</u>

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** SY-4

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>(Presumed, under rip-rap)</u>
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4. Steel Casing (Stick-up) Straight	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Slightly bent, but okay</u>
5. Designated Leveling Point Clearly Marked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>No room on steel</u>
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>OK</u>
3. Bottom of Well Below Grade	<u>N/A</u>
4. Remarks on Integrity of Casing	<u>OK</u>
5. Depth to Water from Top of PVC	<u>113.08'</u>

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** SY-6

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>OK</u>
3. Bottom of Well Below Grade	<u>N/A</u>
4. Remarks on Integrity of Casing	<u>OK</u>
5. Depth to Water from Top of PVC	<u>107.59'</u>

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** SY-7

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Road sand in curb box</u>
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Not used, flush mount</u>
Lock – Intact	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>N/A, curb box</u>
4. Steel Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>N/A (Flush-Mount)</u>
3. Bottom of Well Below Grade	<u>N/A</u>
4. Remarks on Integrity of Casing	<u>OK</u>
5. Depth to Water from Top of PVC	<u>117.58'</u>

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** SY-8

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>(Presumed, under veg/soil)</u>
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Intact, but lower than PVC</u>
Lock – Intact	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Cannot lock</u>
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>OK</u>
3. Bottom of Well Below Grade	<u>N/A</u>
4. Remarks on Integrity of Casing	<u>OK</u>
5. Depth to Water from Top of PVC	<u>119.34'</u>



**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** SY-9

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>(Presumed, under new soil)</u>
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>OK (New Extension)</u>
3. Bottom of Well Below Grade	<u>N/A</u>
4. Remarks on Integrity of Casing	<u>OK (New Casing)</u>
5. Depth to Water from Top of PVC	<u>Dry</u>

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** PK-10S

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Bolted, flush-mount</u>
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Inside of Lid, Closet to Road</u>

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	_____ <u>N/A</u> _____
2. Stick-Up	_____ <u>N/A (Flush-Mount)</u> _____
3. Bottom of Well Below Grade	_____ <u>N/A</u> _____
4. Remarks on Integrity of Casing	_____ <u>OK</u> _____
5. Depth to Water from Top of PVC	_____ <u>110.96'</u> _____

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** PK-10I

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Bolted</u> _____
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Closest to ball court</u> _____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u> _____
2. Stick-Up	<u>N/A (Flush-Mount)</u> _____
3. Bottom of Well Below Grade	<u>N/A</u> _____
4. Remarks on Integrity of Casing	<u>OK</u> _____
5. Depth to Water from Top of PVC	<u>109.79'</u> _____

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** PK-10D

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Needs new bolts</u>
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	<u>N/A</u>
2. Stick-Up	<u>N/A (Flush-Mount)</u>
3. Bottom of Well Below Grade	<u>N/A</u>
4. Remarks on Integrity of Casing	<u>OK</u>
5. Depth to Water from Top of PVC	<u>110.93'</u>

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.**   RW-12I  

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Bolted, flush-mount</u>
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	N/A	_____
2. Stick-Up	N/A (Flush-Mount)	_____
3. Bottom of Well Below Grade	N/A	_____
4. Remarks on Integrity of Casing	OK	_____
5. Depth to Water from Top of PVC	120.28'	_____

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.**   RW-12D  

**DATE:**   12/2/2016  

**PERSONNEL:**   M. Geddish & C. Sicurella  

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Bolted, flush-mount</u>
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	_____ <u>N/A</u> _____
2. Stick-Up	_____ <u>N/A (Flush-Mount)</u> _____
3. Bottom of Well Below Grade	_____ <u>N/A</u> _____
4. Remarks on Integrity of Casing	_____ <u>OK</u> _____
5. Depth to Water from Top of PVC	_____ <u>120.32'</u> _____

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** RB-11S

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Bolted, flush-mount</u>
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	_____ <u>N/A</u> _____
2. Stick-Up	_____ <u>N/A (Flush-Mount)</u> _____
3. Bottom of Well Below Grade	_____ <u>N/A</u> _____
4. Remarks on Integrity of Casing	_____ <u>OK</u> _____
5. Depth to Water from Top of PVC	_____ <u>NM, pump in way</u> _____

**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** RB-111

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Bolted</u> _____
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	_____ <u>N/A</u> _____
2. Stick-Up	_____ <u>N/A (Flush-Mount)</u> _____
3. Bottom of Well Below Grade	_____ <u>N/A</u> _____
4. Remarks on Integrity of Casing	_____ <u>OK</u> _____
5. Depth to Water from Top of PVC	_____ <u>NM, pump in way</u> _____



**SYOSSET LANDFILL  
POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM**

**2016 GROUNDWATER MONITORING WELL  
INSPECTION CHECKLIST**

**WELL NO.** RB-11D

**DATE:** 12/2/2016

**PERSONNEL:** M. Geddish & C. Sicurella

**CHECKLIST FOR INSPECTION OF  
OUTSIDE OF EXISTING WELLS**

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
1. Cement Seal			
Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
Missing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2. Ponding of Water Around Cement Seal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
3. Protective Steel Pipe & Lock (if used)			
Pipe – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Lock – Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Bolted</u> _____
4. PVC Casing (Stick-up) Straight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5. Designated Leveling Point Clearly Marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6. PVC Cap Vented Properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
7. Well is Protected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
8. Well is Clearly Marked	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____

**CHECKLIST FOR INSPECTION OF  
INSIDE OF EXISTING WELLS**

1. Bottom of Well from Top of PVC Casing	_____ <u>N/A</u> _____
2. Stick-Up	_____ <u>N/A (Flush-Mount)</u> _____
3. Bottom of Well Below Grade	_____ <u>N/A</u> _____
4. Remarks on Integrity of Casing	_____ <u>OK</u> _____
5. Depth to Water from Top of PVC	_____ <u>113.13'</u> _____

## **APPENDIX B**

### **Validated Laboratory Results**

**DATA USABILITY SUMMARY REPORT  
SYOSSET LANDFILL POST CLOSURE, SYOSSET, NEW YORK**

Client: Lockwood, Kessler, & Bartlett, Syosset, New York  
 SDG: H5920  
 Laboratory: ChemTech, Mountainside, New Jersey  
 Site: Syosset Landfill, Syosset, New York  
 Date: February 15, 2017

VOCs/Wet Chemistry			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	SY-6	H5920-01	Water
2	SY-2R	H5920-02	Water
2DL†	SY-2RDL	H5920-02DL	Water
3	SY-2D	H5920-03	Water
3DL†	SY-2DDL	H5920-03DL	Water
4	SY-3DD	H5920-04	Water
5MS**	SY-3DDMS	H5920-05MS	Water
6MSD**	SY-3DDMSD	H5920-06MSD	Water
7*	TRIPBLANK	H5920-07	Water
8	FIELDBLANK	H5920-08	Water

\* - VOC only      \*\* - Not analyzed for Alkalinity, BOD5, Color, or TDS      † - Chloride only

Total & Dissolved Metals/Mercury/Cn			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1T	SY-6	H5920-01	Water
2T	SY-2R	H5920-02	Water
3T	SY-2D	H5920-03	Water
4T	SY-3DD	H5920-04	Water
5TMS	SY-3DDMS	H5920-05MS	Water
6TMSD	SY-3DDMSD	H5920-06MSD	Water
8	FIELDBLANK	H5920-08	Water
9D	SY-6	H5920-09	Water
10D	SY-2R	H5920-10	Water
11D	SY-2D	H5920-11	Water
12D	SY-3DD	H5920-12	Water
13DMS	SY-3DDMS	H5920-13MS	Water
14DMSD	SY-3DDMSD	H5920-14MSD	Water

T - Total Metals & Mercury & Cyanide      D - Dissolved Metals & Mercury only

A Data Usability Summary Review was performed on the analytical data for eight water samples, one aqueous trip blank sample, and one aqueous field blank sample collected November 16, 2016 and December 6, 2016 by Lockwood, Kessler & Bartlett at the Syosset Landfill in Syosset, New York. The samples were analyzed under Environmental Protection Agency (USEPA) "Contract

Laboratory Program (CLP) Multi-Media Multi-Concentration Inorganic Analysis ISM02.3”, “Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions” the “Methods for Chemical Analysis of Water and Wastes” and the “Standard Methods for the Examination of Water and Wastewater”.

Specific method references are as follows:

<u>Analysis</u>	<u>Method References</u>
VOCs	USEPA SW846 8260C
Metals/Mercury/Cn	USEPA CLP Method ISM02.3
Alkalinity	Standard Method SM2320 B
Ammonia (as N)	Standard Method SM4500-NH3
Bromide	USEPA Method 300.0
Chloride	USEPA Method 300.0
Nitrate	USEPA Method 300.0
Sulfate	USEPA Method 300.0
BOD5	Standard Method SM5210 B
COD	Standard Method SM5220D
Color	Standard Method SM2120 B
Phenolics	USEPA SW-846 Method 9065
Total Dissolved Solids	Standard Method SM2540C
Total Kjeldahl Nitrogen	Standard Method SM4500-N Org B or C
Total Organic Carbon	Standard Method SM5310B

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods, the USEPA National Functional Guidelines for Organic Data Review, and the site QAPP as follows:

- The USEPA “Contract Laboratories Program National Functional Guidelines for Superfund Organic Methods Data Review,” August 2014;
- The USEPA “Contract Laboratories Program National Functional Guidelines for Inorganic Superfund Data Review,” August 2014;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

### ***Organics***

- Holding times and sample preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

## ***Inorganics***

- Holding times and sample preservation
- Inductively Coupled Plasma/Mass Spectrometry (ICP/MS) Tuning
- Initial and continuing calibration verifications
- Method blank and field QC blank contamination
- ICP Interference Check Sample
- Laboratory Control Sample (LCS) recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Duplicate Sample Analysis
- ICP Serial Dilution
- Compound Quantitation
- Field Duplicate sample precision

### **Overall Usability Issues:**

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

### **Volatile Organic Compounds (VOCs)**

#### **Holding Times**

- All samples were analyzed within 14 days for preserved water samples except for the following.

Sample ID	Date Sampled	Date Extracted	# of Days	Qualifier
7	11/16/16	12/15/16	29	J/UJ

#### **GC/MS Tuning**

- All criteria were met.

#### **Initial Calibration**

- The initial calibrations exhibited acceptable %RSD and/or correlation coefficients and mean RRF values.

### Continuing Calibration

- The continuing calibrations exhibited acceptable %D and RRF values.

### Method Blank

- The method blanks were free of contamination.

### Field Blank

- The field QC samples are summarized below.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
TRIPBLANK	None - ND	-	-	-
FIELD BLANK	None - ND	-	-	-

### Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate recoveries.

### Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- A MS/MSD sample was not collected.

### Laboratory Control Samples

- The LCS samples exhibited acceptable %R values.

### Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

### Compound Quantitation

- All criteria were met.

### Tentatively Identified Compounds (TICs)

- TICs were not detected.

### Field Duplicate Sample Precision

- Field duplicate samples were not collected.

## Total & Dissolved Metals & Hardness & Cyanide

### Holding Times

- All samples were prepared and analyzed within 14 days for cyanide, 28 days for mercury and 180 days for all other metals.

### ICP/MS Tuning

- ICP/MS tuning not required.

### Initial Calibration Verification

- All initial calibration criteria were met.

### Continuing Calibration Verification

- All continuing calibration criteria were met.

### Method Blank

- The method blanks were free of contamination.

### Field Blank

- The field blanks are summarized below.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
FIELDBLANK	None - ND	-	-	-

### ICP Interference Check Sample

- The ICP ICS exhibited acceptable recoveries.

### Laboratory Control Samples

- The LCS sample exhibited acceptable recoveries.



### Matrix Spike/Duplicate (MS/DUP) Recoveries

- The following table presents MS/DUP samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J).

MS/DUP Sample ID	Compound	MS %R/RPD	Qualifier	Affected Samples
4	Cyanide	73%/OK	UJ	1, 2, 3, 4, 8

### ICP Serial Dilution

- ICP serial dilution percent differences (%D) were within acceptance limits.

### Compound Quantitation

- All criteria were met.

### Field Duplicate Sample Precision

- Field duplicate samples were not collected.

**Wet Chemistry Parameters: Alkalinity, Ammonia, Bromide, Chloride, Nitrate, Sulfate, BOD5, COD, Color, Phenolics, TDS, TKN, TOC**

**Holding Times**

- All samples were prepared and analyzed within the recommended time for each analysis except for the following. Positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ).

Sample ID	Compound(s)	Date Sampled	Date Extracted	# of Days	Qualifier
1	Nitrate, BOD5, Color	Outside HT	Outside HT	Outside HT	J
	BOD5	Outside HT	Outside HT	Outside HT	UJ
	Color	Outside HT	Outside HT	Outside HT	J
2	Nitrate	Outside HT	Outside HT	Outside HT	J
	BOD5	Outside HT	Outside HT	Outside HT	UJ
	Color	Outside HT	Outside HT	Outside HT	UJ

**Initial and Continuing Calibration**

- All %R criteria were met.

**Method Blank**

- The method blanks were free of contamination.

**Field Blank**

- Field QC results are summarized below.

Blank ID	Compound	Conc. mg/L	Qualifier	Affected Samples
FIELDBLANK	Ammonia as N	0.068	None	None for Wet Chemistry parameters
	TDS	1	None	
	TKN	0.168	None	
	TOC	0.25	None	

**Matrix Spike/Duplicate (MS/DUP) Recoveries**

- The following table presents MS/DUP samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J).

MS Sample ID	Compound	MS %R/RPD	Qualifier	Affected Samples
4	Ammonia as N	OK/21.3	J	All Samples

### Laboratory Control Samples

- The LCS sample exhibited acceptable recoveries.

### Compound Quantitation

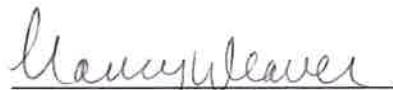
- EDS Sample ID #s 2, and 3 exhibited high concentrations of chloride and were flagged (OR) for over the calibration range by the laboratory. The samples were diluted and reanalyzed and the dilution results for these compounds should be used for reporting purposes.

### Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:



Nancy Weaver  
Senior Chemist

Dated: 2/16/17

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.



**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-6	SDG No.:	H5920
Lab Sample ID:	H5920-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037715.D	1		12/15/16 18:17	VN121516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-6	SDG No.:	H5920
Lab Sample ID:	H5920-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

D

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037715.D	1		12/15/16 18:17	VN121516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoforn	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	47.2		61 - 141		94%	SPK: 50
1868-53-7	Dibromofluoromethane	47.8		69 - 133		96%	SPK: 50
2037-26-5	Toluene-d8	48.5		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.5		58 - 135		85%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1352440	7.86				
540-36-3	1,4-Difluorobenzene	2041600	8.77				
3114-55-4	Chlorobenzene-d5	1709080	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	650423	13.52				

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-2R	SDG No.:	H5920
Lab Sample ID:	H5920-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group I
GC Column:	RXI-624 ID: 0.25	Level:	LOW

**D**

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037716.D	1		12/15/16 18:44	VN121516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L



**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-2R	SDG No.:	H5920
Lab Sample ID:	H5920-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037716.D	1		12/15/16 18:44	VN121516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	46.8		61 - 141		94%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	48.8		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.3		58 - 135		85%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1350600	7.86				
540-36-3	1,4-Difluorobenzene	2020060	8.77				
3114-55-4	Chlorobenzene-d5	1694790	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	652896	13.52				

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-2D	SDG No.:	H5920
Lab Sample ID:	H5920-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level :	LOW

D

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037717.D	1		12/15/16 19:11	VN121516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylecyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-2D	SDG No.:	H5920
Lab Sample ID:	H5920-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037717.D	1		12/15/16 19:11	VN121516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.24	J	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	46.6		61 - 141		93%	SPK: 50
1868-53-7	Dibromofluoromethane	48.2		69 - 133		96%	SPK: 50
2037-26-5	Toluene-d8	48.5		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	41.4		58 - 135		83%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1355190	7.86				
540-36-3	1,4-Difluorobenzene	2044080	8.77				
3114-55-4	Chlorobenzene-d5	1690050	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	626558	13.52				

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-3DD	SDG No.:	H5920
Lab Sample ID:	H5920-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

D

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037718.D	1		12/15/16 19:38	VN121516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.57	J	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-3DD	SDG No.:	H5920
Lab Sample ID:	H5920-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037718.D	1		12/15/16 19:38	VN121516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoforn	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	47.1		61 - 141		94%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	48.4		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	41.9		58 - 135		84%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1337840	7.86				
540-36-3	1,4-Difluorobenzene	2018020	8.77				
3114-55-4	Chlorobenzene-d5	1684500	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	639761	13.52				

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	11/16/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	TRIPBLANK	SDG No.:	H5920
Lab Sample ID:	H5920-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group I
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037714.D	1		12/15/16 17:51	VN121516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	UJ	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	11/16/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	TRIPBLANK	SDG No.:	H5920
Lab Sample ID:	H5920-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group I
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037714.D	1		12/15/16 17:51	VN121516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1 <i>WJ</i>	<del>U</del>	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	<del>U</del>	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	<del>U</del>	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	<del>U</del>	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	<del>U</del>	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	<del>U</del>	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	<del>U</del>	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	<del>U</del>	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	<del>U</del>	0.2	0.2	1	ug/L
100-42-5	Styrene	1	<del>U</del>	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	<del>U</del>	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	<del>U</del>	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	<del>U</del>	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	<del>U</del>	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	<del>U</del>	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	<del>U</del>	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	<del>U</del>	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	<del>U</del>	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	<del>U</del>	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	<del>U</del>	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	47.2		61 - 141		94%	SPK: 50
1868-53-7	Dibromofluoromethane	48.3		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	48.3		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.2		58 - 135		84%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1307900	7.86				
540-36-3	1,4-Difluorobenzene	1975620	8.77				
3114-55-4	Chlorobenzene-d5	1652540	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	633849	13.52				



**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	FIELDBLANK	SDG No.:	H5920
Lab Sample ID:	H5920-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group I
GC Column:	RXI-624 ID: 0.25	Level:	LOW

D

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037713.D	1		12/15/16 17:24	VN121516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L



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**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	FIELDBLANK	SDG No.:	H5920
Lab Sample ID:	H5920-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037713.D	1		12/15/16 17:24	VN121516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	47.5		61 - 141		95%	SPK: 50
1868-53-7	Dibromofluoromethane	47.5		69 - 133		95%	SPK: 50
2037-26-5	Toluene-d8	48.7		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.5		58 - 135		87%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1303820	7.86				
540-36-3	1,4-Difluorobenzene	1974180	8.77				
3114-55-4	Chlorobenzene-d5	1668780	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	647688	13.52				



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IT

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-01  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES  
 Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20.9	J	12/18/2016	1644
7440-36-0	Antimony	60.0	U	12/18/2016	1644
7440-38-2	Arsenic	10.0	U	12/18/2016	1644
7440-39-3	Barium	87.8	J	12/18/2016	1644
7440-41-7	Beryllium	5.0	U	12/18/2016	1644
7440-43-9	Cadmium	5.0	U	12/18/2016	1644
7440-70-2	Calcium	43000		12/18/2016	1644
7440-47-3	Chromium	10.0	U	12/18/2016	1644
7440-48-4	Cobalt	50.0	U	12/18/2016	1644
7440-50-8	Copper	35.1		12/18/2016	1644
7439-89-6	Iron	672		12/18/2016	1644
7439-92-1	Lead	10.0	U	12/18/2016	1644
7439-95-4	Magnesium	11700		12/18/2016	1644
7439-96-5	Manganese	43.5		12/18/2016	1644
7440-02-0	Nickel	6.4	J	12/18/2016	1644
7440-09-7	Potassium	5000	U	12/18/2016	1644
7782-49-2	Selenium	35.0	U	12/18/2016	1644
7440-22-4	Silver	10.0	U	12/18/2016	1644
7440-23-5	Sodium	6160		12/18/2016	1644
7440-28-0	Thallium	25.0	U	12/18/2016	1644
7440-62-2	Vanadium	50.0	U	12/18/2016	1644
7440-66-6	Zinc	1660		12/18/2016	1644
Hardness	Hardness (total)	156		12/18/2016	1644

NOTE: Hardness (total) is reported in  $\text{mg/L}$ 

Comments: \_\_\_\_\_

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EPA SAMPLE NO.

SY-2R

2T

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-02  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	244		12/18/2016	1648
7440-36-0	Antimony	60.0	U	12/18/2016	1648
7440-38-2	Arsenic	10.0	U	12/18/2016	1648
7440-39-3	Barium	97.7	J	12/18/2016	1648
7440-41-7	Beryllium	7.4		12/18/2016	1648
7440-43-9	Cadmium	5.0	U	12/18/2016	1648
7440-70-2	Calcium	32100		12/18/2016	1648
7440-47-3	Chromium	2.2	J	12/18/2016	1648
7440-48-4	Cobalt	12.0	J	12/18/2016	1648
7440-50-8	Copper	25.0	U	12/18/2016	1648
7439-89-6	Iron	126		12/18/2016	1648
7439-92-1	Lead	10.0	U	12/18/2016	1648
7439-95-4	Magnesium	5960		12/18/2016	1648
7439-96-5	Manganese	33.9		12/18/2016	1648
7440-02-0	Nickel	37.0	J	12/18/2016	1648
7440-09-7	Potassium	2870	J	12/18/2016	1648
7782-49-2	Selenium	35.0	U	12/18/2016	1648
7440-22-4	Silver	10.0	U	12/18/2016	1648
7440-23-5	Sodium	232000		12/18/2016	1648
7440-28-0	Thallium	25.0	U	12/18/2016	1648
7440-62-2	Vanadium	50.0	U	12/18/2016	1648
7440-66-6	Zinc	45.2	J	12/18/2016	1648
Hardness	Hardness (total)	105		12/18/2016	1648

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_

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EPA SAMPLE NO.

SY-2D

3T

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-03  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg) : ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	130	J	12/18/2016	1652
7440-36-0	Antimony	60.0	U	12/18/2016	1652
7440-38-2	Arsenic	10.0	U	12/18/2016	1652
7440-39-3	Barium	75.8	J	12/18/2016	1652
7440-41-7	Beryllium	5.0	U	12/18/2016	1652
7440-43-9	Cadmium	5.0	U	12/18/2016	1652
7440-70-2	Calcium	21700		12/18/2016	1652
7440-47-3	Chromium	10.0	U	12/18/2016	1652
7440-48-4	Cobalt	50.0	U	12/18/2016	1652
7440-50-8	Copper	25.0	U	12/18/2016	1652
7439-89-6	Iron	69.0	J	12/18/2016	1652
7439-92-1	Lead	3.7	J	12/18/2016	1652
7439-95-4	Magnesium	5330		12/18/2016	1652
7439-96-5	Manganese	962		12/18/2016	1652
7440-02-0	Nickel	40.0	U	12/18/2016	1652
7440-09-7	Potassium	5510		12/18/2016	1652
7782-49-2	Selenium	35.0	U	12/18/2016	1652
7440-22-4	Silver	10.0	U	12/18/2016	1652
7440-23-5	Sodium	157000		12/18/2016	1652
7440-28-0	Thallium	25.0	U	12/18/2016	1652
7440-62-2	Vanadium	50.0	U	12/18/2016	1652
7440-66-6	Zinc	60.0	U	12/18/2016	1652
Hardness	Hardness (total)	76.1		12/18/2016	1652

NOTE: Hardness (total) is reported in mg/L

Comments:

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EPA SAMPLE NO.  
SY-3DD

4T

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-04  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/18/2016	1656
7440-36-0	Antimony	60.0	U	12/18/2016	1656
7440-38-2	Arsenic	10.0	U	12/18/2016	1656
7440-39-3	Barium	200	U	12/18/2016	1656
7440-41-7	Beryllium	5.0	U	12/18/2016	1656
7440-43-9	Cadmium	5.0	U	12/18/2016	1656
7440-70-2	Calcium	1690	J	12/18/2016	1656
7440-47-3	Chromium	6.2	J	12/18/2016	1656
7440-48-4	Cobalt	50.0	U	12/18/2016	1656
7440-50-8	Copper	25.0	U	12/18/2016	1656
7439-89-6	Iron	25.5	J	12/18/2016	1656
7439-92-1	Lead	10.0	U	12/18/2016	1656
7439-95-4	Magnesium	616	J	12/18/2016	1656
7439-96-5	Manganese	15.0	U	12/18/2016	1656
7440-02-0	Nickel	40.0	U	12/18/2016	1656
7440-09-7	Potassium	5000	U	12/18/2016	1656
7782-49-2	Selenium	35.0	U	12/18/2016	1656
7440-22-4	Silver	10.0	U	12/18/2016	1656
7440-23-5	Sodium	3330	J	12/18/2016	1656
7440-28-0	Thallium	25.0	U	12/18/2016	1656
7440-62-2	Vanadium	50.0	U	12/18/2016	1656
7440-66-6	Zinc	60.0	U	12/18/2016	1656
Hardness	Hardness (total)	6.76	J	12/18/2016	1656

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments:

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EPA SAMPLE NO.

FIELDBLANK

8

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-08  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/18/2016	1712
7440-36-0	Antimony	60.0	U	12/18/2016	1712
7440-38-2	Arsenic	10.0	U	12/18/2016	1712
7440-39-3	Barium	200	U	12/18/2016	1712
7440-41-7	Beryllium	5.0	U	12/18/2016	1712
7440-43-9	Cadmium	5.0	U	12/18/2016	1712
7440-70-2	Calcium	5000	U	12/18/2016	1712
7440-47-3	Chromium	10.0	U	12/18/2016	1712
7440-48-4	Cobalt	50.0	U	12/18/2016	1712
7440-50-8	Copper	25.0	U	12/18/2016	1712
7439-89-6	Iron	100	U	12/18/2016	1712
7439-92-1	Lead	10.0	U	12/18/2016	1712
7439-95-4	Magnesium	5000	U	12/18/2016	1712
7439-96-5	Manganese	15.0	U	12/18/2016	1712
7440-02-0	Nickel	40.0	U	12/18/2016	1712
7440-09-7	Potassium	5000	U	12/18/2016	1712
7782-49-2	Selenium	35.0	U	12/18/2016	1712
7440-22-4	Silver	10.0	U	12/18/2016	1712
7440-23-5	Sodium	5000	U	12/18/2016	1712
7440-28-0	Thallium	25.0	U	12/18/2016	1712
7440-62-2	Vanadium	50.0	U	12/18/2016	1712
7440-66-6	Zinc	60.0	U	12/18/2016	1712
Hardness	Hardness (total)	33.1	U	12/18/2016	1712

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments:

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

90

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-09  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES  
 Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/18/2016	1717
7440-36-0	Antimony	60.0	U	12/18/2016	1717
7440-38-2	Arsenic	10.0	U	12/18/2016	1717
7440-39-3	Barium	85.8	J	12/18/2016	1717
7440-41-7	Beryllium	5.0	U	12/18/2016	1717
7440-43-9	Cadmium	5.0	U	12/18/2016	1717
7440-70-2	Calcium	42000		12/18/2016	1717
7440-47-3	Chromium	10.0	U	12/18/2016	1717
7440-48-4	Cobalt	50.0	U	12/18/2016	1717
7440-50-8	Copper	30.6		12/18/2016	1717
7439-89-6	Iron	251		12/18/2016	1717
7439-92-1	Lead	10.0	U	12/18/2016	1717
7439-95-4	Magnesium	11400		12/18/2016	1717
7439-96-5	Manganese	40.8		12/18/2016	1717
7440-02-0	Nickel	6.0	J	12/18/2016	1717
7440-09-7	Potassium	5000	U	12/18/2016	1717
7782-49-2	Selenium	35.0	U	12/18/2016	1717
7440-22-4	Silver	10.0	U	12/18/2016	1717
7440-23-5	Sodium	6060		12/18/2016	1717
7440-28-0	Thallium	25.0	U	12/18/2016	1717
7440-62-2	Vanadium	50.0	U	12/18/2016	1717
7440-66-6	Zinc	1550		12/18/2016	1717

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
SY-2R

100

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-10  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES  
 Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	215		12/18/2016	1721
7440-36-0	Antimony	60.0	U	12/18/2016	1721
7440-38-2	Arsenic	10.0	U	12/18/2016	1721
7440-39-3	Barium	100	J	12/18/2016	1721
7440-41-7	Beryllium	7.9		12/18/2016	1721
7440-43-9	Cadmium	5.0	U	12/18/2016	1721
7440-70-2	Calcium	33500		12/18/2016	1721
7440-47-3	Chromium	2.1	J	12/18/2016	1721
7440-48-4	Cobalt	12.0	J	12/18/2016	1721
7440-50-8	Copper	25.0	U	12/18/2016	1721
7439-89-6	Iron	15.8	J	12/18/2016	1721
7439-92-1	Lead	10.0	U	12/18/2016	1721
7439-95-4	Magnesium	6180		12/18/2016	1721
7439-96-5	Manganese	33.5		12/18/2016	1721
7440-02-0	Nickel	38.1	J	12/18/2016	1721
7440-09-7	Potassium	2990	J	12/18/2016	1721
7782-49-2	Selenium	35.0	U	12/18/2016	1721
7440-22-4	Silver	10.0	U	12/18/2016	1721
7440-23-5	Sodium	237000		12/18/2016	1721
7440-28-0	Thallium	25.0	U	12/18/2016	1721
7440-62-2	Vanadium	50.0	U	12/18/2016	1721
7440-66-6	Zinc	56.7	J	12/18/2016	1721

NOTE: Hardness (total) is reported in mg/L

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SY-2D

110

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-11  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg) : ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/18/2016	1725
7440-36-0	Antimony	60.0	U	12/18/2016	1725
7440-38-2	Arsenic	10.0	U	12/18/2016	1725
7440-39-3	Barium	75.3	J	12/18/2016	1725
7440-41-7	Beryllium	5.0	U	12/18/2016	1725
7440-43-9	Cadmium	5.0	U	12/18/2016	1725
7440-70-2	Calcium	22100		12/18/2016	1725
7440-47-3	Chromium	10.0	U	12/18/2016	1725
7440-48-4	Cobalt	50.0	U	12/18/2016	1725
7440-50-8	Copper	25.0	U	12/18/2016	1725
7439-89-6	Iron	19.3	J	12/18/2016	1725
7439-92-1	Lead	10.0	U	12/18/2016	1725
7439-95-4	Magnesium	5270		12/18/2016	1725
7439-96-5	Manganese	915		12/18/2016	1725
7440-02-0	Nickel	40.0	U	12/18/2016	1725
7440-09-7	Potassium	5410		12/18/2016	1725
7782-49-2	Selenium	35.0	U	12/18/2016	1725
7440-22-4	Silver	10.0	U	12/18/2016	1725
7440-23-5	Sodium	158000		12/18/2016	1725
7440-28-0	Thallium	25.0	U	12/18/2016	1725
7440-62-2	Vanadium	50.0	U	12/18/2016	1725
7440-66-6	Zinc	60.0	U	12/18/2016	1725

NOTE: Hardness (total) is reported in mg/L

Comments:

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
SY-3DD

12D

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-12  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES  
 Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/18/2016	1729
7440-36-0	Antimony	60.0	U	12/18/2016	1729
7440-38-2	Arsenic	10.0	U	12/18/2016	1729
7440-39-3	Barium	200	U	12/18/2016	1729
7440-41-7	Beryllium	5.0	U	12/18/2016	1729
7440-43-9	Cadmium	5.0	U	12/18/2016	1729
7440-70-2	Calcium	1660	J	12/18/2016	1729
7440-47-3	Chromium	10.0	U	12/18/2016	1729
7440-48-4	Cobalt	50.0	U	12/18/2016	1729
7440-50-8	Copper	25.0	U	12/18/2016	1729
7439-89-6	Iron	100	U	12/18/2016	1729
7439-92-1	Lead	10.0	U	12/18/2016	1729
7439-95-4	Magnesium	633	J	12/18/2016	1729
7439-96-5	Manganese	15.0	U	12/18/2016	1729
7440-02-0	Nickel	40.0	U	12/18/2016	1729
7440-09-7	Potassium	5000	U	12/18/2016	1729
7782-49-2	Selenium	35.0	U	12/18/2016	1729
7440-22-4	Silver	10.0	U	12/18/2016	1729
7440-23-5	Sodium	3520	J	12/18/2016	1729
7440-28-0	Thallium	25.0	U	12/18/2016	1729
7440-62-2	Vanadium	50.0	U	12/18/2016	1729
7440-66-6	Zinc	60.0	U	12/18/2016	1729

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SY-6

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
Matrix: WATER Lab Sample ID: H5920-01  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1641

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
SY-2R

21

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
Matrix: WATER Lab Sample ID: H5920-02  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1643

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SY-2D

3T

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
Matrix: WATER Lab Sample ID: H5920-03  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1645

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

4T

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-04  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1647

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-08  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1654

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
SY-6

91

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
Matrix: WATER Lab Sample ID: H5920-09  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1656

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

EPA SAMPLE NO.

SY-2R

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

107

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-10  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg) : ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1658

NOTE: Hardness (total) is reported in mg/L

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

EPA SAMPLE NO.

SY-2D

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

117

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. ; \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-11  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1700

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SY-3DD

12D

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
Matrix: WATER Lab Sample ID: H5920-12  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) : ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1702

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



EPA SAMPLE NO.

SY-6

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

IT

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-01  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: Spectrophotometry  
 Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0	UJ ✓	12/09/2016	1325

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

EPA SAMPLE NO.

SY-2R

21

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
Matrix: WATER Lab Sample ID: H5920-02  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: Spectrophotometry

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0 <i>uj</i>	<del>U</del>	12/09/2016	1325

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
SY-2D

3T

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
Matrix: WATER Lab Sample ID: H5920-03  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: Spectrophotometry

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0 <i>uj</i>	<del>U</del>	12/09/2016	1325

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
SY-3DD

4T

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
Matrix: WATER Lab Sample ID: H5920-04  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: Spectrophotometry

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0 <i>WJ</i>	<input checked="" type="checkbox"/>	12/09/2016	1325

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

8

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-6  
 Matrix: WATER Lab Sample ID: H5920-08  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: Spectrophotometry  
 Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) : ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0 <i>WJ</i>	<del>U*</del>	12/09/2016	1331

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16 10:15
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-6	SDG No.:	H5920
Lab Sample ID:	H5920-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	109		1	0.4	1	2	mg/L		12/12/16 13:27	SM2320 B
Ammonia as N	0.083	J ✓	1	0.034	0.05	0.1	mg/L	12/09/16 11:36	12/13/16 10:36	SM 4500-NH3 B plus G
Bromide	1.59		1	0.066	0.25	0.5	mg/L		12/08/16 11:33	300
Chloride	4.94		1	0.075	0.075	0.15	mg/L		12/08/16 11:33	300
Nitrate	1.54	J H	1	0.027	0.057	0.113	mg/L		12/08/16 11:33	300
Sulfate	42.3		1	0.132	0.375	0.75	mg/L		12/08/16 11:33	300
BOD5	2	U J H	1	2	2	2	mg/L		12/08/16 11:30	SM5210 B
COD	5	U	1	2.43	2.5	5	mg/L		12/14/16 15:02	SM5220 D
Color	5	J H	1	5	5	5	cu		12/08/16 13:15	SM2120 B
Phenolics	0.05	U	1	0.01	0.025	0.05	mg/L	12/09/16 11:57	12/09/16 16:26	9065
TDS	198		1	0.031	5	10	mg/L		12/12/16 16:40	SM2540C
TKN	0.338	J	1	0.096	0.25	0.5	mg/L	12/12/16 09:50	12/13/16 13:22	SM4500-N Org B or C plus NH3 G
TOC	2.01		1	0.08	0.25	0.5	mg/L		12/09/16 11:27	SM5310B

Comments:

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 D = Dilution  
 Q = indicates LCS control criteria did not meet requirements  
 H = Sample Analysis Out Of Hold Time

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 \* = indicates the duplicate analysis is not within control limits.  
 E = Indicates the reported value is estimated because of the presence of interference.  
 OR = Over Range  
 N = Spiked sample recovery not within control limits

2

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16 11:15
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-2R	SDG No.:	H5920
Lab Sample ID:	H5920-02	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	29.2		1	0.4	1	2	mg/L		12/12/16 13:31	SM2320 B
Ammonia as N	0.045	J	1	0.034	0.05	0.1	mg/L	12/09/16 11:36	12/13/16 10:36	SM 4500-NH3 B plus G
Bromide	1.51		1	0.066	0.25	0.5	mg/L		12/08/16 12:02	300
Chloride	398	J	OR	0.075	0.075	0.15	mg/L		12/08/16 12:02	300
Nitrate	1.57	J	1	0.027	0.057	0.113	mg/L		12/08/16 12:02	300
Sulfate	34.3		1	0.132	0.375	0.75	mg/L		12/08/16 12:02	300
BOD5	2	U	1	2	2	2	mg/L		12/08/16 11:30	SM5210 B
COD	5	U	1	2.43	2.5	5	mg/L		12/14/16 15:03	SM5220 D
Color	5	U	1	5	5	5	cu		12/08/16 13:20	SM2120 B
Phenolics	0.05	U	1	0.01	0.025	0.05	mg/L	12/09/16 11:57	12/09/16 16:26	9065
TDS	787		1	0.031	5	10	mg/L		12/12/16 16:40	SM2540C
TKN	0.354	J	1	0.096	0.25	0.5	mg/L	12/12/16 09:50	12/13/16 13:22	SM4500-N Org B or C plus NH3 G
TOC	1.94		1	0.08	0.25	0.5	mg/L		12/09/16 10:51	SM5310B

Comments:

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 D = Dilution  
 Q = indicates LCS control criteria did not meet requirements  
 H = Sample Analysis Out Of Hold Time

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 \* = indicates the duplicate analysis is not within control limits.  
 E = Indicates the reported value is estimated because of the presence of interference.  
 OR = Over Range  
 N = Spiked sample recovery not within control limits

**Report of Analysis**

2 DL

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16 11:15
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-2RDL	SDG No.:	H5920
Lab Sample ID:	H5920-02DL	Matrix:	WATER
		% Solid:	0

Use original results

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ/CRQL	Units	Prep Date	Date Ana.	Ana Met.
Chloride	398	D	50	3.75	3.75	7.5	mg/L		12/08/16 20:14	300

Comments:

- U = Not Detected
- LOQ = Limit of Quantitation
- MDL = Method Detection Limit
- LOD = Limit of Detection
- D = Dilution
- Q = indicates LCS control criteria did not meet requirements
- H = Sample Analysis Out Of Hold Time

- J = Estimated Value
- B = Analyte Found in Associated Method Blank
- \* = indicates the duplicate analysis is not within control limits.
- E = Indicates the reported value is estimated because of the presence of interference.
- OR = Over Range
- N = Spiked sample recovery not within control limits

3

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16 13:30
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-2D	SDG No.:	H5920
Lab Sample ID:	H5920-03	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	31.9		1	0.4	1	2	mg/L		12/12/16 13:35	SM2320 B
Ammonia as N	0.073	J	1	0.034	0.05	0.1	mg/L	12/09/16 11:36	12/13/16 10:36	SM 4500-NH3 B plus G
Bromide	0.938		1	0.066	0.25	0.5	mg/L		12/08/16 12:31	300
Chloride	266	OR	1	50	3.75	7.5	mg/L		12/08/16 12:31	300
Nitrate	1.04		1	0.027	0.057	0.113	mg/L		12/08/16 12:31	300
Sulfate	10.7		1	0.132	0.375	0.75	mg/L		12/08/16 12:31	300
BOD5	2	U	1	2	2	2	mg/L		12/08/16 11:30	SM5210 B
COD	5	U	1	2.43	2.5	5	mg/L		12/14/16 15:03	SM5220 D
Color	5	U	1	5	5	5	cu		12/08/16 13:30	SM2120 B
Phenolics	0.05	U	1	0.01	0.025	0.05	mg/L	12/09/16 11:57	12/09/16 16:26	9065
TDS	544		1	0.031	5	10	mg/L		12/12/16 16:40	SM2540C
TKN	0.228	J	1	0.096	0.25	0.5	mg/L	12/12/16 09:50	12/13/16 13:22	SM4500-N Org B or C plus NH3 G
TOC	4.23		1	0.08	0.25	0.5	mg/L		12/09/16 11:09	SM5310B

Comments:

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 D = Dilution  
 Q = indicates LCS control criteria did not meet requirements  
 H = Sample Analysis Out Of Hold Time

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 \* = indicates the duplicate analysis is not within control limits.  
 E = Indicates the reported value is estimated because of the presence of interference.  
 OR = Over Range  
 N = Spiked sample recovery not within control limits



3DL

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16 13:30
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-2DDL	SDG No.:	H5920
Lab Sample ID:	H5920-03DL	Matrix:	WATER
		% Solid:	0

Use original results

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Chloride	266	✓	50	3.75	3.75	7.5	mg/L		12/08/16 20:43	300

Comments:

- U = Not Detected
- LOQ = Limit of Quantitation
- MDL = Method Detection Limit
- LOD = Limit of Detection
- D = Dilution
- Q = indicates LCS control criteria did not meet requirements
- H = Sample Analysis Out Of Hold Time

- J = Estimated Value
- B = Analyte Found in Associated Method Blank
- \* = indicates the duplicate analysis is not within control limits.
- E = Indicates the reported value is estimated because of the presence of interference.
- OR = Over Range
- N = Spiked sample recovery not within control limits

4

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/06/16 15:00
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-3DD	SDG No.:	H5920
Lab Sample ID:	H5920-04	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	5.04		1	0.4	1	2	mg/L		12/12/16 14:31	SM2320 B
Ammonia as N	0.042	J	1	0.034	0.05	0.1	mg/L	12/09/16 11:36	12/13/16 10:36	SM4500-NH3 B plus G
Bromide	0.5	U	1	0.066	0.25	0.5	mg/L		12/08/16 13:00	300
Chloride	4.75		1	0.075	0.075	0.15	mg/L		12/08/16 13:00	300
Nitrate	0.79		1	0.027	0.057	0.113	mg/L		12/08/16 13:00	300
Sulfate	1.95		1	0.132	0.375	0.75	mg/L		12/08/16 13:00	300
BOD5	2	U	1	2	2	2	mg/L		12/08/16 11:30	SM5210 B
COD	5	U	1	2.43	2.5	5	mg/L		12/14/16 15:04	SM5220 D
Color	5	U	1	5	5	5	cu		12/08/16 13:35	SM2120 B
Phenolics	0.05	U	1	0.01	0.025	0.05	mg/L	12/09/16 11:57	12/09/16 16:26	9065
TDS	28		1	0.031	5	10	mg/L		12/12/16 16:40	SM2540C
TKN	0.158	J	1	0.096	0.25	0.5	mg/L	12/12/16 09:50	12/13/16 13:22	SM4500-N Org B or C plus NH3 G
TOC	0.311	J	1	0.08	0.25	0.5	mg/L		12/09/16 11:43	SM5310B

Comments:

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 D = Dilution  
 Q = indicates LCS control criteria did not meet requirements  
 H = Sample Analysis Out Of Hold Time

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 \* = indicates the duplicate analysis is not within control limits.  
 E = Indicates the reported value is estimated because of the presence of interference.  
 OR = Over Range  
 N = Spiked sample recovery not within control limits

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16 08:30
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	FIELDBLANK	SDG No.:	H5920
Lab Sample ID:	H5920-08	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	2	U	1	0.4	1	2	mg/L		12/12/16 13:41	SM2320 B
Ammonia as N	0.068	J	1	0.034	0.05	0.1	mg/L	12/09/16 11:36	12/13/16 11:52	SM 4500-NH3 B plus G
Bromide	0.5	U	1	0.066	0.25	0.5	mg/L		12/08/16 14:27	300
Chloride	0.15	U	1	0.075	0.075	0.15	mg/L		12/08/16 14:27	300
Nitrate	0.113	U	1	0.027	0.057	0.113	mg/L		12/08/16 14:27	300
Sulfate	0.75	U	1	0.132	0.375	0.75	mg/L		12/08/16 14:27	300
BOD5	2	U	1	2	2	2	mg/L		12/08/16 11:30	SM5210 B
COD	5	U	1	2.43	2.5	5	mg/L		12/14/16 15:06	SM5220 D
Color	5	U	1	5	5	5	cu		12/08/16 13:40	SM2120 B
Phenolics	0.05	U	1	0.01	0.025	0.05	mg/L	12/09/16 11:57	12/09/16 16:33	9065
TDS	1	J	1	0.031	5	10	mg/L		12/12/16 16:40	SM2540C
TKN	0.168	J	1	0.096	0.25	0.5	mg/L	12/12/16 09:50	12/13/16 14:28	SM4500-N Org B or C plus NH3 G
TOC	0.25	J	1	0.08	0.25	0.5	mg/L		12/09/16 12:00	SM5310B

Comments:

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 D = Dilution  
 Q = indicates LCS control criteria did not meet requirements  
 H = Sample Analysis Out Of Hold Time

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 \* = indicates the duplicate analysis is not within control limits.  
 E = Indicates the reported value is estimated because of the presence of interference.  
 OR = Over Range  
 N = Spiked sample recovery not within control limits

**DATA USABILITY SUMMARY REPORT  
SYOSSET LANDFILL POST CLOSURE, SYOSSET, NEW YORK**

Client: Lockwood, Kessler, & Bartlett, Syosset, New York  
 SDG: H5921  
 Laboratory: ChemTech, Mountainside, New Jersey  
 Site: Syosset Landfill, Syosset, New York  
 Date: February 15, 2017

VOCs/Wet Chemistry			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	SY-3D	H5921-01	Water
1DL**	SY-3DDL	H5921-01DL	Water
2	SY-7	H5921-02	Water
2DL**	SY-7DL	H5921-02DL	Water
3	SY-3	H5921-03	Water
3DL**	SY-3DL	H5921-03DL	Water
4*	TRIPBLANK	H5921-04	Water

\* - VOC Only    \*\* - Ammonia, Chloride, TKN only

Total & Dissolved Metals/Mercury/Cn			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1T	SY-3D	H5921-01	Water
2T	SY-7	H5921-02	Water
3T	SY-3	H5921-03	Water
5D	SY-3D	H5921-05	Water
6D	SY-7	H5921-06	Water
7D	SY-3	H5921-07	Water

T - Total Metals & Mercury & Cyanide    D - Dissolved Metals & Mercury only

A Data Usability Summary Review was performed on the analytical data for six water samples, one aqueous trip blank sample, and one aqueous field blank sample collected November 16, 2016 and December 7, 2016 by Lockwood, Kessler & Bartlett at the Syosset Landfill in Syosset, New York. The samples were analyzed under Environmental Protection Agency (USEPA) "Contract Laboratory Program (CLP) Multi-Media Multi-Concentration Inorganic Analysis ISM02.3", "Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions" the "Methods for Chemical Analysis of Water and Wastes" and the "Standard Methods for the Examination of Water and Wastewater".

Specific method references are as follows:

<i>Analysis</i>	<i>Method References</i>
VOCs	USEPA SW846 8260C
Metals/Mercury/Cn	USEPA CLP Method ISM02.3
Alkalinity	Standard Method SM2320 B
Ammonia (as N)	Standard Method SM4500-NH3
Bromide	USEPA Method 300.0
Chloride	USEPA Method 300.0
Nitrate	USEPA Method 300.0
Sulfate	USEPA Method 300.0
BOD5	Standard Method SM5210 B
COD	Standard Method SM5220D
Color	Standard Method SM2120 B
Phenolics	USEPA SW-846 Method 9065
Total Dissolved Solids	Standard Method SM2540C
Total Kjeldahl Nitrogen	Standard Method SM4500-N Org B or C
Total Organic Carbon	Standard Method SM5310B

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods, the USEPA National Functional Guidelines for Organic Data Review, and the site QAPP as follows:

- The USEPA “Contract Laboratories Program National Functional Guidelines for Superfund Organic Methods Data Review,” August 2014;
- The USEPA “Contract Laboratories Program National Functional Guidelines for Inorganic Superfund Data Review,” August 2014;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

### *Organics*

- Holding times and sample preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

### *Inorganics*

- Holding times and sample preservation
- Inductively Coupled Plasma/Mass Spectrometry (ICP/MS) Tuning
- Initial and continuing calibration verifications
- Method blank and field QC blank contamination

- ICP Interference Check Sample
- Laboratory Control Sample (LCS) recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Duplicate Sample Analysis
- ICP Serial Dilution
- Compound Quantitation
- Field Duplicate sample precision

### **Overall Usability Issues:**

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

### **Volatile Organic Compounds (VOCs)**

#### **Holding Times**

- All samples were analyzed within 14 days for preserved water samples except for the following.

Sample ID	Date Sampled	Date Extracted	# of Days	Qualifier
4	11/16/16	12/14/16	28	J/UJ

#### **GC/MS Tuning**

- All criteria were met.

#### **Initial Calibration**

- The initial calibrations exhibited acceptable %RSD and/or correlation coefficients and mean RRF values.

#### **Continuing Calibration**

- The continuing calibrations exhibited acceptable %D and RRF values.

### **Method Blank**

- The method blanks were free of contamination.

### **Field Blank**

- The field QC samples are summarized below.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
TRIPBLANK	None - ND	-	-	-
FIELD BLANK (SDG H5920)	None - ND	-	-	-

### **Surrogate Spike Recoveries**

- All samples exhibited acceptable surrogate recoveries.

### **Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries**

- A MS/MSD sample was not collected.

### **Laboratory Control Samples**

- The LCS samples exhibited acceptable %R values except for the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
VN1213WS01	Bromomethane	42%	UJ	1, 2, 3

### **Internal Standard (IS) Area Performance**

- All internal standards met response and retention time (RT) criteria.

### **Compound Quantitation**

- All criteria were met.

### **Tentatively Identified Compounds (TICs)**

- TICs were not detected.

### Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Compound	SY-3D ug/L	SY-7 ug/L	RPD	Qualifier
cis-1,2-Dichloroethene	0.4	0.36	11%	None
Trichloroethene	0.28	0.28	0%	None
Chlorobenzene	0.33	0.31	6%	



## Total & Dissolved Metals & Hardness & Cyanide

### Holding Times

- All samples were prepared and analyzed within 14 days for cyanide, 28 days for mercury and 180 days for all other metals.

### ICP/MS Tuning

- ICP/MS tuning not required.

### Initial Calibration Verification

- All initial calibration criteria were met.

### Continuing Calibration Verification

- All continuing calibration criteria were met.

### Method Blank

- The method blanks were free of contamination.

### Field Blank

- The field blanks are summarized below.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
FIELDBLANK (SDG H5920)	None - ND	-	-	-

### ICP Interference Check Sample

- The ICP ICS exhibited acceptable recoveries.

### Laboratory Control Samples

- The LCS sample exhibited acceptable recoveries.

### Matrix Spike/Duplicate (MS/DUP) Recoveries

- The following table presents MS/DUP samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J).

MS/DUP Sample ID	Compound	MS %R/RPD	Qualifier	Affected Samples
REFERENCE	Cyanide	73%/OK	UJ	1, 2, 3

### ICP Serial Dilution

- ICP serial dilution percent differences (%D) were within acceptance limits.

### Compound Quantitation

- All criteria were met.

### Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Total Metals				
Compound	SY-3D ug/L	SY-7 ug/L	RPD	Qualifier
Arsenic	11.9	16.6	33%	None
Barium	187	181	3%	
Cadmium	0.74	5.0U	NC	
Calcium	53600	52100	3%	
Cobalt	17.6	17.3	2%	
Copper	5.6	4.1	31%	
Iron	22500	21800	3%	
Magnesium	14200	13700	4%	
Manganese	904	878	3%	
Potassium	23500	22800	3%	
Sodium	315000	306000	3%	
Hardness (Total)	192	187	3%	

Dissolved Metals				
Compound	SY-3D ug/L	SY-7 ug/L	RPD	Qualifier
Arsenic	16.0	16.5	3%	None
Barium	188	186	1%	
Cadmium	5.0U	0.87	NC	
Calcium	53800	53900	0%	
Chromium	10.0U	2.4	NC	

Dissolved Metals				
Compound	SY-3D ug/L	SY-7 ug/L	RPD	Qualifier
Cobalt	17.9	17.6	2%	None
Copper	5.0	5.4	8%	
Iron	22700	22600	0%	
Magnesium	14200	14200	0%	
Manganese	916	914	0%	
Nickel	40.0U	9.7	NC	
Potassium	23600	23500	0%	
Sodium	319000	317000	1%	

**Wet Chemistry Parameters: Alkalinity, Ammonia, Bromide, Chloride, Nitrate, Sulfate, BOD5, COD, Color, Phenolics, TDS, TKN, TOC**

**Holding Times**

- All samples were prepared and analyzed within the recommended time for each analysis.

**Initial and Continuing Calibration**

- All %R criteria were met.

**Method Blank**

- The method blanks were free of contamination.

**Field Blank**

- Field QC results are summarized below.

Blank ID	Compound	Conc. mg/L	Qualifier	Affected Samples
FIELDBLANK (SDG H5920)	Ammonia as N	0.068	None	None for Wet Chemistry parameters
	TDS	1	None	
	TKN	0.168	None	
	TOC	0.25	None	

**Matrix Spike/Duplicate (MS/DUP) Recoveries**

- The following table presents MS/DUP samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J).

MS Sample ID	Compound	MS %R/RPD	Qualifier	Affected Samples
REFERENCE	Ammonia as N	OK/21.3	J	All Samples

**Laboratory Control Samples**

- The LCS sample exhibited acceptable recoveries.

### Compound Quantitation

- EDS Sample ID #s 1, 2, and 3 exhibited high concentrations of ammonia as N, chloride, and TKN and were flagged (OR) for over the calibration range by the laboratory. The samples were diluted and reanalyzed and the dilution results for these compounds should be used for reporting purposes.


### Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Compound	SY-3D mg/L	SY-7 mg/L	RPD	Qualifier
Alkalinity	466	474	2%	None
Ammonia as N	16.3	15.2	7%	
Bromide	0.5U	2.07	NC	
Chloride	549	541	1%	
Sulfate	47.4	47.7	1%	
BOD5	3.71	2.35	45%	
COD	5.76	5.76	0%	
Color	60	40	40%	
TDS	1138	1209	6%	
TKN	15.8	15.1	5%	
TOC	4.91	6.4	26%	

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:

  
Nancy Weaver  
Senior Chemist

Dated:

2/16/17

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.



**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-3D	SDG No.:	H5921
Lab Sample ID:	H5921-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

D

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037627.D	1		12/13/16 16:37	VN121316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1 <i>uJ</i>	<del>U</del>	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.4	J	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.28	J	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L



**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-3D	SDG No.:	H5921
Lab Sample ID:	H5921-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037627.D	1		12/13/16 16:37	VN121316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.33	J	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	52.5		61 - 141		105%	SPK: 50
1868-53-7	Dibromofluoromethane	51		69 - 133		102%	SPK: 50
2037-26-5	Toluene-d8	50.2		65 - 126		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.4		58 - 135		107%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	829728	7.86				
540-36-3	1,4-Difluorobenzene	1421890	8.78				
3114-55-4	Chlorobenzene-d5	1371770	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	588936	13.52				

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-7	SDG No.:	H5921
Lab Sample ID:	H5921-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group I
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037628.D	1		12/13/16 17:04	VN121316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1 <i>uJ</i>	<del>U</del>	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.36	J	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.28	J	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-7	SDG No.:	H5921
Lab Sample ID:	H5921-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037628.D	1		12/13/16 17:04	VN121316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.31	J	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromofom	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	46.2		61 - 141		92%	SPK: 50
1868-53-7	Dibromofluoromethane	48.3		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	48.7		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	43		58 - 135		86%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1055040	7.86				
540-36-3	1,4-Difluorobenzene	1567020	8.78				
3114-55-4	Chlorobenzene-d5	1321610	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	516472	13.52				

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-3	SDG No.:	H5921
Lab Sample ID:	H5921-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group I
GC Column:	RXI-624 ID: 0.25	Level:	LOW

D

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037629.D	1		12/13/16 17:31	VN121316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	UJ	UJ	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.32	J	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.46	J	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-3	SDG No.:	H5921
Lab Sample ID:	H5921-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group I
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037629.D	1		12/13/16 17:31	VN121316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.26	J	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromofom	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	45.7		61 - 141		91%	SPK: 50
1868-53-7	Dibromofluoromethane	49.1		69 - 133		98%	SPK: 50
2037-26-5	Toluene-d8	48.9		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	41.1		58 - 135		82%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1015500	7.86				
540-36-3	1,4-Difluorobenzene	1500070	8.78				
3114-55-4	Chlorobenzene-d5	1240420	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	455509	13.52				

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**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	11/16/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	TRIPBLANK	SDG No.:	H5921
Lab Sample ID:	H5921-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group I
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037667.D	1		12/14/16 16:42	VN121416

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	UJ	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

**Report of Analysis**

4

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	11/16/16
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	TRIPBLANK	SDG No.:	H5921
Lab Sample ID:	H5921-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

D

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037667.D	1		12/14/16 16:42	VN121416

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	45.2		61 - 141		90%	SPK: 50
1868-53-7	Dibromofluoromethane	47.3		69 - 133		95%	SPK: 50
2037-26-5	Toluene-d8	48.8		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.6		58 - 135		85%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1011920	7.86				
540-36-3	1,4-Difluorobenzene	1494900	8.78				
3114-55-4	Chlorobenzene-d5	1239540	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	470099	13.52				





FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030 IT

Lab Code: CHM Case No.: Syosset Landfi MA No.:  SDG No.: SY-3D B

Matrix: WATER Lab Sample ID: H5921-01 D

% Solids:  Date Received: 12/08/2016

Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/18/2016	1745
7440-36-0	Antimony	60.0	U	12/18/2016	1745
7440-38-2	Arsenic	11.9		12/18/2016	1745
7440-39-3	Barium	187	J	12/18/2016	1745
7440-41-7	Beryllium	5.0	U	12/18/2016	1745
7440-43-9	Cadmium	0.74	J	12/18/2016	1745
7440-70-2	Calcium	53600		12/18/2016	1745
7440-47-3	Chromium	10.0	U	12/18/2016	1745
7440-48-4	Cobalt	17.6	J	12/18/2016	1745
7440-50-8	Copper	5.6	J	12/18/2016	1745
7439-89-6	Iron	22500		12/18/2016	1745
7439-92-1	Lead	10.0	U	12/18/2016	1745
7439-95-4	Magnesium	14200		12/18/2016	1745
7439-96-5	Manganese	904		12/18/2016	1745
7440-02-0	Nickel	40.0	U	12/18/2016	1745
7440-09-7	Potassium	23500		12/18/2016	1745
7782-49-2	Selenium	35.0	U	12/18/2016	1745
7440-22-4	Silver	10.0	U	12/18/2016	1745
7440-23-5	Sodium	315000		12/18/2016	1745
7440-28-0	Thallium	25.0	U	12/18/2016	1745
7440-62-2	Vanadium	50.0	U	12/18/2016	1745
7440-66-6	Zinc	60.0	U	12/18/2016	1745
Hardness	Hardness (total)	192		12/18/2016	1745

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments:

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FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

SY-7

2-T

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D  
 Matrix: WATER Lab Sample ID: H5921-02  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$ 

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/18/2016	1749
7440-36-0	Antimony	60.0	U	12/18/2016	1749
7440-38-2	Arsenic	16.6		12/18/2016	1749
7440-39-3	Barium	181	J	12/18/2016	1749
7440-41-7	Beryllium	5.0	U	12/18/2016	1749
7440-43-9	Cadmium	5.0	U	12/18/2016	1749
7440-70-2	Calcium	52100		12/18/2016	1749
7440-47-3	Chromium	10.0	U	12/18/2016	1749
7440-48-4	Cobalt	17.3	J	12/18/2016	1749
7440-50-8	Copper	4.1	J	12/18/2016	1749
7439-89-6	Iron	21800		12/18/2016	1749
7439-92-1	Lead	10.0	U	12/18/2016	1749
7439-95-4	Magnesium	13700		12/18/2016	1749
7439-96-5	Manganese	878		12/18/2016	1749
7440-02-0	Nickel	40.0	U	12/18/2016	1749
7440-09-7	Potassium	22800		12/18/2016	1749
7782-49-2	Selenium	35.0	U	12/18/2016	1749
7440-22-4	Silver	10.0	U	12/18/2016	1749
7440-23-5	Sodium	306000		12/18/2016	1749
7440-28-0	Thallium	25.0	U	12/18/2016	1749
7440-62-2	Vanadium	50.0	U	12/18/2016	1749
7440-66-6	Zinc	60.0	U	12/18/2016	1749
Hardness	Hardness (total)	187		12/18/2016	1749

NOTE: Hardness (total) is reported in  $\text{mg/L}$ 

Comments:

EPA SAMPLE NO.

SY-3

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

3T

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D  
 Matrix: WATER Lab Sample ID: H5921-03  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES  
 Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/18/2016	1753
7440-36-0	Antimony	60.0	U	12/18/2016	1753
7440-38-2	Arsenic	44.0		12/18/2016	1753
7440-39-3	Barium	140	J	12/18/2016	1753
7440-41-7	Beryllium	5.0	U	12/18/2016	1753
7440-43-9	Cadmium	1.0	J	12/18/2016	1753
7440-70-2	Calcium	40300		12/18/2016	1753
7440-47-3	Chromium	10.0	U	12/18/2016	1753
7440-48-4	Cobalt	50.0	U	12/18/2016	1753
7440-50-8	Copper	10.1	J	12/18/2016	1753
7439-89-6	Iron	33600		12/18/2016	1753
7439-92-1	Lead	10.0	U	12/18/2016	1753
7439-95-4	Magnesium	15800		12/18/2016	1753
7439-96-5	Manganese	4240		12/18/2016	1753
7440-02-0	Nickel	40.0	U	12/18/2016	1753
7440-09-7	Potassium	14300		12/18/2016	1753
7782-49-2	Selenium	35.0	U	12/18/2016	1753
7440-22-4	Silver	10.0	U	12/18/2016	1753
7440-23-5	Sodium	115000		12/18/2016	1753
7440-28-0	Thallium	25.0	U	12/18/2016	1753
7440-62-2	Vanadium	50.0	U	12/18/2016	1753
7440-66-6	Zinc	60.0	U	12/18/2016	1753
Hardness	Hardness (total)	166		12/18/2016	1753

NOTE: Hardness (total) is reported in  $\text{mg/L}$ 

Comments:

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

SY-3D

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D  
 Matrix: WATER Lab Sample ID: H5921-05  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES  
 Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/18/2016	1805
7440-36-0	Antimony	60.0	U	12/18/2016	1805
7440-38-2	Arsenic	16.0		12/18/2016	1805
7440-39-3	Barium	188	J	12/18/2016	1805
7440-41-7	Beryllium	5.0	U	12/18/2016	1805
7440-43-9	Cadmium	5.0	U	12/18/2016	1805
7440-70-2	Calcium	53800		12/18/2016	1805
7440-47-3	Chromium	10.0	U	12/18/2016	1805
7440-48-4	Cobalt	17.9	J	12/18/2016	1805
7440-50-8	Copper	5.0	J	12/18/2016	1805
7439-89-6	Iron	22700		12/18/2016	1805
7439-92-1	Lead	10.0	U	12/18/2016	1805
7439-95-4	Magnesium	14200		12/18/2016	1805
7439-96-5	Manganese	916		12/18/2016	1805
7440-02-0	Nickel	40.0	U	12/18/2016	1805
7440-09-7	Potassium	23600		12/18/2016	1805
7782-49-2	Selenium	35.0	U	12/18/2016	1805
7440-22-4	Silver	10.0	U	12/18/2016	1805
7440-23-5	Sodium	319000		12/18/2016	1805
7440-28-0	Thallium	25.0	U	12/18/2016	1805
7440-62-2	Vanadium	50.0	U	12/18/2016	1805
7440-66-6	Zinc	60.0	U	12/18/2016	1805

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

SY-7

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030

Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D

Matrix: WATER Lab Sample ID: H5921-06

% Solids: \_\_\_\_\_ Date Received: 12/08/2016

Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/18/2016	1810
7440-36-0	Antimony	60.0	U	12/18/2016	1810
7440-38-2	Arsenic	16.5		12/18/2016	1810
7440-39-3	Barium	186	J	12/18/2016	1810
7440-41-7	Beryllium	5.0	U	12/18/2016	1810
7440-43-9	Cadmium	0.87	J	12/18/2016	1810
7440-70-2	Calcium	53900		12/18/2016	1810
7440-47-3	Chromium	2.4	J	12/18/2016	1810
7440-48-4	Cobalt	17.6	J	12/18/2016	1810
7440-50-8	Copper	5.4	J	12/18/2016	1810
7439-89-6	Iron	22600		12/18/2016	1810
7439-92-1	Lead	10.0	U	12/18/2016	1810
7439-95-4	Magnesium	14200		12/18/2016	1810
7439-96-5	Manganese	914		12/18/2016	1810
7440-02-0	Nickel	9.7	J	12/18/2016	1810
7440-09-7	Potassium	23500		12/18/2016	1810
7782-49-2	Selenium	35.0	U	12/18/2016	1810
7440-22-4	Silver	10.0	U	12/18/2016	1810
7440-23-5	Sodium	317000		12/18/2016	1810
7440-28-0	Thallium	25.0	U	12/18/2016	1810
7440-62-2	Vanadium	50.0	U	12/18/2016	1810
7440-66-6	Zinc	60.0	U	12/18/2016	1810

NOTE: Hardness (total) is reported in  $\text{mg/L}$ 

Comments:

EPA SAMPLE NO.

SY-3

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

7D

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D  
 Matrix: WATER Lab Sample ID: H5921-07  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$ 

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/18/2016	1814
7440-36-0	Antimony	60.0	U	12/18/2016	1814
7440-38-2	Arsenic	44.3		12/18/2016	1814
7440-39-3	Barium	137	J	12/18/2016	1814
7440-41-7	Beryllium	5.0	U	12/18/2016	1814
7440-43-9	Cadmium	0.97	J	12/18/2016	1814
7440-70-2	Calcium	39200		12/18/2016	1814
7440-47-3	Chromium	10.0	U	12/18/2016	1814
7440-48-4	Cobalt	50.0	U	12/18/2016	1814
7440-50-8	Copper	7.5	J	12/18/2016	1814
7439-89-6	Iron	30800		12/18/2016	1814
7439-92-1	Lead	10.0	U	12/18/2016	1814
7439-95-4	Magnesium	15600		12/18/2016	1814
7439-96-5	Manganese	4040		12/18/2016	1814
7440-02-0	Nickel	40.0	U	12/18/2016	1814
7440-09-7	Potassium	13800		12/18/2016	1814
7782-49-2	Selenium	35.0	U	12/18/2016	1814
7440-22-4	Silver	10.0	U	12/18/2016	1814
7440-23-5	Sodium	112000		12/18/2016	1814
7440-28-0	Thallium	25.0	U	12/18/2016	1814
7440-62-2	Vanadium	50.0	U	12/18/2016	1814
7440-66-6	Zinc	60.0	U	12/18/2016	1814

NOTE: Hardness (total) is reported in  $\text{mg/L}$ 

Comments:



FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
SY-3D

IT

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D  
Matrix: WATER Lab Sample ID: H5921-01  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1708

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

mw 2/15/17



2T

EPA SAMPLE NO.

SY-7

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D  
Matrix: WATER Lab Sample ID: H5921-02  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1711

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*mw 2/15/17*

3T

EPA SAMPLE NO.

SY-3

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030

Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D

Matrix: WATER Lab Sample ID: H5921-03

% Solids: \_\_\_\_\_ Date Received: 12/08/2016

Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1713

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*mm*  
*2/15/17*

5D

EPA SAMPLE NO.

SY-3D

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D  
 Matrix: WATER Lab Sample ID: H5921-05  
 % Solids: \_\_\_\_\_ Date Received: 12/08/2016  
 Analytical Method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg) : ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1715

NOTE: Hardness (total) is reported in mg/L

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*MW*  
*2/15/17*

617

EPA SAMPLE NO.

SY-7

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D  
Matrix: WATER Lab Sample ID: H5921-06  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1717

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*nr*  
*2/15/17*

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SY-3

17

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No.: \_\_\_\_\_ SDG No.: SY-3D  
Matrix: WATER Lab Sample ID: H5921-07  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/09/2016	1719

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments:

*mw*  
*2/15/17*



FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

SY-3D

Lab Name: Chemtech Consulting Group Contract: EPW14030

Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D

Matrix: WATER Lab Sample ID: H5921-01

% Solids: \_\_\_\_\_ Date Received: 12/08/2016

Analytical Method: Spectrophotometry

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0 <i>uj</i>	<del>Q</del>	12/09/2016	1331

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
SY-7

2

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D  
Matrix: WATER Lab Sample ID: H5921-02  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: Spectrophotometry

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0 <i>WJ</i>	<del>U</del>	12/09/2016	1331

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
SY-3

3

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: SY-3D  
Matrix: WATER Lab Sample ID: H5921-03  
% Solids: \_\_\_\_\_ Date Received: 12/08/2016  
Analytical Method: Spectrophotometry  
Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0	UJ	12/09/2016	1331

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

mw 2/15/17



**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16 10:30
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-3D	SDG No.:	H5921
Lab Sample ID:	H5921-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	466		1	0.4	1	2	mg/L		12/12/16 13:43	SM2320 B
Ammonia as N	16.3 J 14.7		OR 10*	0.034	0.05	0.1 1	mg/L	12/09/16 11:36	12/13/16 10:47	SM 4500-NH3 B plus G
Bromide	0.5	U	1	0.066	0.25	0.5	mg/L		12/08/16 18:18	300
Chloride	549 720		OR 50*	0.075	0.075	0.15 7.5	mg/L		12/08/16 18:18	300
Nitrate	0.113	U	1	0.027	0.057	0.113	mg/L		12/08/16 18:18	300
Sulfate	47.4		1	0.132	0.375	0.75	mg/L		12/08/16 18:18	300
BOD5	3.71		1	2	2	2	mg/L		12/08/16 11:30	SM5210 B
COD	5.76		1	2.43	2.5	5	mg/L		12/14/16 15:07	SM5220 D
Color	60		1	5	5	5	cu		12/08/16 13:45	SM2120 B
Phenolics	0.05	U	1	0.01	0.025	0.05	mg/L	12/09/16 11:57	12/09/16 16:33	9065
TDS	1138		1	0.031	5	10	mg/L		12/12/16 16:40	SM2540C
TKN	15.8 12.5		OR 5*	0.096	0.25	0.5 2.5	mg/L	12/12/16 09:50	12/13/16 13:33	SM4500-N Org B or C plus NH3 G
TOC	4.91		1	0.08	0.25	0.5	mg/L		12/09/16 12:55	SM5310B

Comments:

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 D = Dilution  
 Q = indicates LCS control criteria did not meet requirements  
 H = Sample Analysis Out Of Hold Time

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 \* = indicates the duplicate analysis is not within control limits.  
 E = Indicates the reported value is estimated because of the presence of interference.  
 OR = Over Range  
 N = Spiked sample recovery not within control limits

**Report of Analysis**

IDL

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16 10:30
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-3DDL	SDG No.:	H5921
Lab Sample ID:	H5921-01DL	Matrix:	WATER
		% Solid:	0

Use original

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	16.3	J	10	0.34	0.5	1	mg/L	12/09/16 11:36	12/13/16 11:23	SM 4500-NH3 B plus G
Chloride	549	D	50	3.75	3.75	7.5	mg/L		12/12/16 16:13	300
TKN	15.8	D	5	0.48	1.25	2.5	mg/L		12/13/16 14:28	SM4500-N Org B or C plus NH3 G

Comments:

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 D = Dilution  
 Q = indicates LCS control criteria did not meet requirements  
 H = Sample Analysis Out Of Hold Time

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 \* = indicates the duplicate analysis is not within control limits.  
 E = Indicates the reported value is estimated because of the presence of interference.  
 OR = Over Range  
 N = Spiked sample recovery not within control limits

2

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07 16 09:30
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-7	SDG No.:	H5921
Lab Sample ID:	H5921-02	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	474		1	0.4	1	2	mg/L		12/12/16 13:49	SM2320 B
Ammonia as N	15.2 J <del>12.8</del>	OR <del>10</del> ↑		<del>0.034</del>	<del>0.05</del>	<del>0.1</del>	mg/L	12/09/16 11:36	12/13/16 10:47	SM 4500-NH3 B plus G
Bromide	2.07		1	0.066	0.25	0.5	mg/L		12/08/16 18:47	300
Chloride	541 <del>703</del>	OR <del>50</del> ↑		<del>0.075</del>	<del>0.075</del>	<del>0.15</del>	mg/L		12/08/16 18:47	300
Nitrate	0.113	U	1	0.027	0.057	0.113	mg/L		12/08/16 18:47	300
Sulfate	47.7		1	0.132	0.375	0.75	mg/L		12/08/16 18:47	300
BOD5	2.35		1	2	2	2	mg/L		12/08/16 11:30	SM5210 B
COD	5.76		1	2.43	2.5	5	mg/L		12/14/16 15:07	SM5220 D
Color	40		1	5	5	5	cu		12/08/16 13:50	SM2120 B
Phenolics	0.05	U	1	0.01	0.025	0.05	mg/L	12/09/16 11:57	12/09/16 16:33	9065
TDS	1209		1	0.031	5	10	mg/L		12/12/16 16:40	SM2540C
TKN	15.1 <del>14</del>	OR <del>5</del> ↑		<del>0.096</del>	<del>0.25</del>	<del>0.5</del>	mg/L	12/12/16 09:50	12/13/16 13:33	SM4500-N Org B or C plus NH3 G
TOC	6.4		1	0.08	0.25	0.5	mg/L		12/09/16 14:00	SM5310B

Comments:

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 D = Dilution  
 Q = indicates LCS control criteria did not meet requirements  
 H = Sample Analysis Out Of Hold Time

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 \* = indicates the duplicate analysis is not within control limits.  
 E = Indicates the reported value is estimated because of the presence of interference.  
 OR = Over Range  
 N = Spiked sample recovery not within control limits

**Report of Analysis**

2DL

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16 09:30
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-7DL	SDG No.:	H5921
Lab Sample ID:	H5921-02DL	Matrix:	WATER
		% Solid:	0

use original

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	15.2	J	10	0.34	0.5	1	mg/L	12/09/16 11:36	12/13/16 11:23	SM 4500-NH3 B plus G
Chloride	541	Q	50	3.75	3.75	7.5	mg/L		12/12/16 16:42	300
TKN	15.1	Q	5	0.48	1.25	2.5	mg/L	12/12/16 09:50	12/13/16 13:33	SM4500-N Org B or C plus NH3 G

Comments:

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 D = Dilution  
 Q = indicates LCS control criteria did not meet requirements  
 H = Sample Analysis Out Of Hold Time

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 \* = indicates the duplicate analysis is not within control limits.  
 E = Indicates the reported value is estimated because of the presence of interference.  
 OR = Over Range  
 N = Spiked sample recovery not within control limits

3

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16 11:15
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-3	SDG No.:	H5921
Lab Sample ID:	H5921-03	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	366		1	0.4	1	2	mg/L		12/12/16 13:55	SM2320 B
Ammonia as N	10.9 J			<del>10.4</del>	<del>OR 10.4</del>	<del>0.034</del> <del>0.05</del> <del>0.1</del>	mg/L	12/09/16 11:36	12/13/16 10:47	SM 4500-NH3 B plus G
Bromide	1.72		1	0.066	0.25	0.5	mg/L		12/08/16 19:16	300
Chloride	199			<del>253</del>	<del>OR 201</del>	<del>0.075</del> <del>0.075</del> <del>1.5</del> <del>0.15</del> <del>3</del>	mg/L		12/08/16 19:16	300
Nitrate	0.113	U	1	0.027	0.057	0.113	mg/L		12/08/16 19:16	300
Sulfate	42.2		1	0.132	0.375	0.75	mg/L		12/08/16 19:16	300
BOD5	3.42		1	2	2	2	mg/L		12/08/16 11:30	SM5210 B
COD	5.76		1	2.43	2.5	5	mg/L		12/14/16 15:08	SM5220 D
Color	40		1	5	5	5	cu		12/08/16 13:55	SM2120 B
Phenolics	0.05	U	1	0.01	0.025	0.05	mg/L	12/09/16 11:57	12/09/16 16:33	9065
TDS	538		1	0.031	5	10	mg/L		12/12/16 16:40	SM2540C
TKN	10.8			<del>10.8</del>	<del>OR 5.4</del>	<del>0.096</del> <del>0.25</del> <del>0.5</del> <del>0.48</del> <del>1.25</del> <del>2.5</del>	mg/L	12/12/16 09:50	12/13/16 13:33	SM4500-N Org B or C plus NH3 G
TOC	4.23		1	0.08	0.25	0.5	mg/L		12/09/16 14:18	SM5310B

Comments:

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 D = Dilution  
 Q = indicates LCS control criteria did not meet requirements  
 H = Sample Analysis Out Of Hold Time

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 \* = indicates the duplicate analysis is not within control limits.  
 E = Indicates the reported value is estimated because of the presence of interference.  
 OR = Over Range  
 N = Spiked sample recovery not within control limits

3DL

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/07/16 11:15
Project:	Syosset Landfill	Date Received:	12/08/16
Client Sample ID:	SY-3DL	SDG No.:	H5921
Lab Sample ID:	H5921-03DL	Matrix:	WATER
		% Solid:	0

Use ORIGINAL

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	10.9	J	10	0.34	0.5	1	mg/L	12/09/16 11:36	12/13/16 11:23	SM 4500-NH3 B plus G
Chloride	199	D	20	1.5	1.5	3	mg/L		12/12/16 17:11	300
TKN	10.8	D	5	0.48	1.25	2.5	mg/L	12/12/16 09:50	12/13/16 13:33	SM4500-N Org B or C plus NH3 G

Comments:

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 D = Dilution  
 Q = indicates LCS control criteria did not meet requirements  
 H = Sample Analysis Out Of Hold Time

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 \* = indicates the duplicate analysis is not within control limits.  
 E = Indicates the reported value is estimated because of the presence of interference.  
 OR = Over Range  
 N = Spiked sample recovery not within control limits



**DATA USABILITY SUMMARY REPORT  
SYOSSET LANDFILL POST CLOSURE, SYOSSET, NEW YORK**

Client: Lockwood, Kessler, & Bartlett, Syosset, New York  
 SDG: H6071  
 Laboratory: ChemTech, Mountainside, New Jersey  
 Site: Syosset Landfill, Syosset, New York  
 Date: February 16, 2017

VOCs/Wet Chemistry			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	PK-10D	H6071-01	Water
1MS**	PK-10DMS	H6071-01MS	Water
1MSD**	PK-10DMSD	H6071-01MSD	Water
2	PK-10S	H6071-02	Water
3	PK-10I	H6071-03	Water
4	RW-12D	H6071-04	Water
5	RW-12I	H6071-05	Water
5MS†	RW-12IMS	H6071-05MS	Water
5MSD†	RW-12IMSD	H6071-05MSD	Water
6*	TRIPBLANK	H6071-06	Water

\* - VOC Only    \*\* - Ammonia, Phenolics, & TKN only    † - Bromide, Chloride, Nitrate, Sulfate, COD, & TOC only

Total & Dissolved Metals/Mercury/Cn			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1T	PK-10D	H6071-01	Water
1TMS*	PK-10DMS	H6071-01MS	Water
1TMSD*	PK-10DMSD	H6071-01MSD	Water
2T	PK-10S	H6071-02	Water
2TMS	PK-10SMS	H6071-02MS	Water
2TMSD	PK-10SMSD	H6071-02MSD	Water
3T	PK-10I	H6071-03	Water
4T	RW-12D	H6071-04	Water
5T	RW-12I	H6071-05	Water
7D	PK-10D	H6071-07	Water
8D	PK-10S	H6071-08	Water
9D	PK-10I	H6071-09	Water
10D	RW-12D	H6071-10	Water
11D	RW-12I	H6071-11	Water

\* - Mercury & Cyanide only    T - Total Metals & Mercury & Cyanide    D - Dissolved Metals & Mercury only

A Data Usability Summary Review was performed on the analytical data for ten water samples and one aqueous trip blank sample collected November 16, 2016 and December 13, 2016 by Lockwood, Kessler & Bartlett at the Syosset Landfill in Syosset, New York. The samples were

analyzed under Environmental Protection Agency (USEPA) “Contract Laboratory Program (CLP) Multi-Media Multi-Concentration Inorganic Analysis ISM02.3”, “Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions” the “Methods for Chemical Analysis of Water and Wastes” and the “Standard Methods for the Examination of Water and Wastewater”.

Specific method references are as follows:

<u>Analysis</u>	<u>Method References</u>
VOCs	USEPA SW846 8260C
Metals/Mercury/Cn	USEPA CLP Method ISM02.3
Alkalinity	Standard Method SM2320 B
Ammonia (as N)	Standard Method SM4500-NH3
Bromide	USEPA Method 300.0
Chloride	USEPA Method 300.0
Nitrate	USEPA Method 300.0
Sulfate	USEPA Method 300.0
BOD5	Standard Method SM5210 B
COD	Standard Method SM5220D
Color	Standard Method SM2120 B
Phenolics	USEPA SW-846 Method 9065
Total Dissolved Solids	Standard Method SM2540C
Total Kjeldahl Nitrogen	Standard Method SM4500-N Org B or C
Total Organic Carbon	Standard Method SM5310B

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods, the USEPA National Functional Guidelines for Organic Data Review, and the site QAPP as follows:

- The USEPA “Contract Laboratories Program National Functional Guidelines for Superfund Organic Methods Data Review,” August 2014;
- The USEPA “Contract Laboratories Program National Functional Guidelines for Inorganic Superfund Data Review,” August 2014;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

### ***Organics***

- Holding times and sample preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation

- Field Duplicate sample precision

### ***Inorganics***

- Holding times and sample preservation
- Inductively Coupled Plasma/Mass Spectrometry (ICP/MS) Tuning
- Initial and continuing calibration verifications
- Method blank and field QC blank contamination
- ICP Interference Check Sample
- Laboratory Control Sample (LCS) recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Duplicate Sample Analysis
- ICP Serial Dilution
- Compound Quantitation
- Field Duplicate sample precision

### **Overall Usability Issues:**

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

### **Volatile Organic Compounds (VOCs)**

#### **Holding Times**

- All samples were analyzed within 14 days for preserved water samples.

#### **GC/MS Tuning**

- All criteria were met.

#### **Initial Calibration**

- The initial calibrations exhibited acceptable %RSD and/or correlation coefficients and mean RRF values.

### Continuing Calibration

- The continuing calibrations exhibited acceptable %D and RRF values.

### Method Blank

- The method blanks were free of contamination.

### Field Blank

- The field QC samples are summarized below.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
TRIPBLANK	None - ND	-	-	-
FIELD BLANK (SDG H5920)	None - ND	-	-	-

### Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate recoveries.

### Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- A MS/MSD sample was not analyzed.

### Laboratory Control Samples

- The LCS samples exhibited acceptable %R values.

### Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

### Compound Quantitation

- All criteria were met.

### Tentatively Identified Compounds (TICs)

- TICs were not detected.

### Field Duplicate Sample Precision

- Field duplicate samples were not collected.

## Total & Dissolved Metals & Hardness & Cyanide

### Holding Times

- All samples were prepared and analyzed within 14 days for cyanide, 28 days for mercury and 180 days for all other metals.

### ICP/MS Tuning

- ICP/MS tuning not required.

### Initial Calibration Verification

- All initial calibration criteria were met.

### Continuing Calibration Verification

- All continuing calibration criteria were met.

### Method Blank

- The method blanks were free of contamination.

### Field Blank

- The field blanks are summarized below.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
FIELDBLANK (SDG H5920)	None - ND	-	-	-

### ICP Interference Check Sample

- The ICP ICS exhibited acceptable recoveries.

### Laboratory Control Samples

- The LCS sample exhibited acceptable recoveries.

### Matrix Spike/Duplicate (MS/DUP) Recoveries

- The method blanks were free of contamination.

### ICP Serial Dilution

- ICP serial dilution percent differences (%D) were within acceptance limits.

### Compound Quantitation

- All criteria were met.

### Field Duplicate Sample Precision

- Field duplicate samples were not collected.

**Wet Chemistry Parameters: Alkalinity, Ammonia, Bromide, Chloride, Nitrate, Sulfate, BOD5, COD, Color, Phenolics, TDS, TKN, TOC**

**Holding Times**

- All samples were prepared and analyzed within the recommended time for each analysis.

**Initial and Continuing Calibration**

- All %R criteria were met.

**Method Blank**

- The method blanks were free of contamination.

**Field Blank**

- Field QC results are summarized below.

Blank ID	Compound	Conc. mg/L	Qualifier	Affected Samples
FIELDBLANK (SDG H5920)	Ammonia as N	0.068	None	None for Wet Chemistry parameters
	TDS	1	None	
	TKN	0.168	None	
	TOC	0.25	None	

**Matrix Spike/Duplicate (MS/DUP) Recoveries**

- The following table presents MS/DUP samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J).

MS Sample ID	Compound	MS %R/RPD	Qualifier	Affected Samples
5	TOC	126%/OK	J	All Samples
	Sulfate	54%/OK	J	

**Laboratory Control Samples**

- The LCS sample exhibited acceptable recoveries.



### Compound Quantitation

- EDS Sample ID #s 1, 3, 4, and 5 exhibited high concentrations of ammonia as N, chloride, and TKN and were flagged (OR) for over the calibration range by the laboratory. The samples were diluted and reanalyzed and the dilution results for these compounds should be used for reporting purposes.

### Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver  
Nancy Weaver  
Senior Chemist

Dated: 2/16/17

<b>Data Qualifier</b>	<b>Definition</b>
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.



**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	PK-10D	SDG No.:	H6071
Lab Sample ID:	H6071-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037799.D	1		12/17/16 18:27	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.24	J	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	0.64	J	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	4.3		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	PK-10D	SDG No.:	H6071
Lab Sample ID:	H6071-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037799.D	1		12/17/16 18:27	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	48.7		61 - 141		97%	SPK : 50
1868-53-7	Dibromofluoromethane	49.1		69 - 133		98%	SPK : 50
2037-26-5	Toluene-d8	48.6		65 - 126		97%	SPK : 50
460-00-4	4-Bromofluorobenzene	41.9		58 - 135		84%	SPK : 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1228020	7.86				
540-36-3	1,4-Difluorobenzene	1886690	8.78				
3114-55-4	Chlorobenzene-d5	1579610	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	603620	13.52				

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	PK-10S	SDG No.:	H6071
Lab Sample ID:	H6071-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037800.D	1		12/17/16 18:54	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	PK-108	SDG No.:	H6071
Lab Sample ID:	H6071-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037800.D	1		12/17/16 18:54	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	49		61 - 141		98%	SPK : 50
1868-53-7	Dibromofluoromethane	49.1		69 - 133		98%	SPK : 50
2037-26-5	Toluene-d8	49		65 - 126		98%	SPK : 50
460-00-4	4-Bromofluorobenzene	41.8		58 - 135		84%	SPK : 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1230750	7.86				
540-36-3	1,4-Difluorobenzene	1893010	8.78				
3114-55-4	Chlorobenzene-d5	1609210	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	620757	13.52				

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	PK-101	SDG No.:	H6071
Lab Sample ID:	H6071-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037801.D	1		12/17/16 19:21	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.54	J	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L





**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	PK-10I	SDG No.:	H6071
Lab Sample ID:	H6071-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

D

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037801.D	1		12/17/16 19:21	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	5.6		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1.4		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.45	J	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	48.8		61 - 141		98%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		69 - 133		98%	SPK: 50
2037-26-5	Toluene-d8	48.4		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.9		58 - 135		82%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1183660	7.86				
540-36-3	1,4-Difluorobenzene	1804810	8.78				
3114-55-4	Chlorobenzene-d5	1498390	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	572447	13.52				

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	RW-12D	SDG No.:	H6071
Lab Sample ID:	H6071-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037802.D	1		12/17/16 19:48	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	2.9		0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.55	J	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	7.9		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	7.1		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	4.7		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	0.5	J	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.81	J	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1.1		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	RW-12D	SDG No.:	H6071
Lab Sample ID:	H6071-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037802.D	1		12/17/16 19:48	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1.2		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	38.9		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	4.1		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	16		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	10.7		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	49.4		61 - 141		99%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	48.9		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.5		58 - 135		87%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1229620	7.86				
540-36-3	1,4-Difluorobenzene	1892740	8.78				
3114-55-4	Chlorobenzene-d5	1632920	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	646084	13.52				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
60-29-7	Diethyl Ether	0.84	J			3.55	ug/L
109-99-9	Tetrahydrofuran	3.3	J			7.47	ug/L

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	RW-12D	SDG No.:	H6071
Lab Sample ID:	H6071-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group I
GC Column:	RXI-624 ID: 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037802.D	1		12/17/16 19:48	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	1.9	J			12.85	ug/L

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 E = Value Exceeds Calibration Range  
 Q = indicates LCS control criteria did not meet requirements  
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound  
 \* = Values outside of QC limits  
 D = Dilution  
 () = Laboratory InHouse Limit

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	RW-12I	SDG No.:	H6071
Lab Sample ID:	H6071-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group I
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037803.D	1		12/17/16 20:16	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1.3		0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.26	J	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	3.7		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	3.3		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	0.84	J	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1.3		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L



**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	RW-121	SDG No.:	H6071
Lab Sample ID:	H6071-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group I
GC Column:	RXI-624 ID: 0.25	Level:	LOW

D

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037803.D	1		12/17/16 20:16	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1.9		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	19.9		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	2.8		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	11.5		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	7.1		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	49.8		61 - 141		100%	SPK: 50
1868-53-7	Dibromofluoromethane	49.2		69 - 133		98%	SPK: 50
2037-26-5	Toluene-d8	48.9		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	43		58 - 135		86%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1196080	7.86				
540-36-3	1,4-Difluorobenzene	1833930	8.78				
3114-55-4	Chlorobenzene-d5	1573550	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	623682	13.52				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
75-65-0	Tert butyl alcohol	22.9	J			5.03	ug/L
109-99-9	Tetrahydrofuran	5.9	J			7.48	ug/L

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	RW-12I	SDG No.:	H6071
Lab Sample ID:	H6071-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037803.D	1		12/17/16 20:16	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ/ CRQL	Units
95-49-8	2-Chlorotoluene	0.78	J			12.85	ug/L
135-98-8	sec-Butylbenzene	0.47	J			13.34	ug/L

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 E = Value Exceeds Calibration Range  
 Q = indicates LCS control criteria did not meet requirements  
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound  
 \* = Values outside of QC limits  
 D = Dilution  
 () = Laboratory InHouse Limit

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	11/16/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	TRIPBLANK	SDG No.:	H6071
Lab Sample ID:	H6071-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group I
GC Column:	RXI-624 ID: 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037790.D	1		12/17/16 14:22	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L



### Report of Analysis

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	11/16/16
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	TRIPBLANK	SDG No.:	H6071
Lab Sample ID:	H6071-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID: 0.25	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN037790.D	1		12/17/16 14:22	VN121716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromofom	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	46.9		61 - 141		94%	SPK: 50
1868-53-7	Dibromofluoromethane	47.7		69 - 133		95%	SPK: 50
2037-26-5	Toluene-d8	48.5		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	41.6		58 - 135		83%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1355520	7.86				
540-36-3	1,4-Difluorobenzene	2083710	8.78				
3114-55-4	Chlorobenzene-d5	1749440	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	664541	13.52				



FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

PK-10D

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
 Matrix: WATER Lab Sample ID: H6071-01  
 % Solids: \_\_\_\_\_ Date Received: 12/14/2016  
 Analytical Method: ICP-AES  
 Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/24/2016	2041
7440-36-0	Antimony	60.0	U	12/24/2016	2041
7440-38-2	Arsenic	4.1	J	12/24/2016	2041
7440-39-3	Barium	38.7	J	12/24/2016	2041
7440-41-7	Beryllium	5.0	U	12/24/2016	2041
7440-43-9	Cadmium	5.0	U	12/24/2016	2041
7440-70-2	Calcium	26200		12/24/2016	2041
7440-47-3	Chromium	14.3		12/24/2016	2041
7440-48-4	Cobalt	50.0	U	12/24/2016	2041
7440-50-8	Copper	25.0	U	12/24/2016	2041
7439-89-6	Iron	102		12/24/2016	2041
7439-92-1	Lead	10.0	U	12/24/2016	2041
7439-95-4	Magnesium	8210		12/24/2016	2041
7439-96-5	Manganese	20.0		12/24/2016	2041
7440-02-0	Nickel	30.6	J	12/24/2016	2041
7440-09-7	Potassium	5000	U	12/24/2016	2041
7782-49-2	Selenium	35.0	U	12/24/2016	2041
7440-22-4	Silver	10.0	U	12/24/2016	2041
7440-23-5	Sodium	49600		12/24/2016	2041
7440-28-0	Thallium	25.0	U	12/24/2016	2041
7440-62-2	Vanadium	50.0	U	12/24/2016	2041
7440-66-6	Zinc	60.0	U	12/24/2016	2041
Hardness	Hardness (total)	99.2		12/24/2016	2041

NOTE: Hardness (total) is reported in mg/L

Comments:

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

PK-10S

Lab Name: Chemtech Consulting Group Contract: EPW14030

Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D

Matrix: WATER Lab Sample ID: H6071-02

% Solids: \_\_\_\_\_ Date Received: 12/14/2016

Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/24/2016	2046
7440-36-0	Antimony	60.0	U	12/24/2016	2046
7440-38-2	Arsenic	10.0	U	12/24/2016	2046
7440-39-3	Barium	15.6	J	12/24/2016	2046
7440-41-7	Beryllium	5.0	U	12/24/2016	2046
7440-43-9	Cadmium	5.0	U	12/24/2016	2046
7440-70-2	Calcium	11700		12/24/2016	2046
7440-47-3	Chromium	1.2	J	12/24/2016	2046
7440-48-4	Cobalt	50.0	U	12/24/2016	2046
7440-50-8	Copper	25.0	U	12/24/2016	2046
7439-89-6	Iron	36.4	J	12/24/2016	2046
7439-92-1	Lead	10.0	U	12/24/2016	2046
7439-95-4	Magnesium	2470	J	12/24/2016	2046
7439-96-5	Manganese	10.9	J	12/24/2016	2046
7440-02-0	Nickel	4.0	J	12/24/2016	2046
7440-09-7	Potassium	5000	U	12/24/2016	2046
7782-49-2	Selenium	35.0	U	12/24/2016	2046
7440-22-4	Silver	10.0	U	12/24/2016	2046
7440-23-5	Sodium	5480		12/24/2016	2046
7440-28-0	Thallium	25.0	U	12/24/2016	2046
7440-62-2	Vanadium	50.0	U	12/24/2016	2046
7440-66-6	Zinc	60.0	U	12/24/2016	2046
Hardness	Hardness (total)	39.4		12/24/2016	2046

NOTE: Hardness (total) is reported in  $\text{mg/L}$ 

Comments:

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

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Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
 Matrix: WATER Lab Sample ID: H6071-03  
 % Solids: \_\_\_\_\_ Date Received: 12/14/2016  
 Analytical Method: ICP-AES  
 Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/24/2016	2102
7440-36-0	Antimony	60.0	U	12/24/2016	2102
7440-38-2	Arsenic	10.0	U	12/24/2016	2102
7440-39-3	Barium	60.1	J	12/24/2016	2102
7440-41-7	Beryllium	5.0	U	12/24/2016	2102
7440-43-9	Cadmium	5.0	U	12/24/2016	2102
7440-70-2	Calcium	49200		12/24/2016	2102
7440-47-3	Chromium	59.2		12/24/2016	2102
7440-48-4	Cobalt	61.9		12/24/2016	2102
7440-50-8	Copper	25.0	U	12/24/2016	2102
7439-89-6	Iron	297		12/24/2016	2102
7439-92-1	Lead	10.0	U	12/24/2016	2102
7439-95-4	Magnesium	14200		12/24/2016	2102
7439-96-5	Manganese	1800		12/24/2016	2102
7440-02-0	Nickel	29.5	J	12/24/2016	2102
7440-09-7	Potassium	17000		12/24/2016	2102
7782-49-2	Selenium	35.0	U	12/24/2016	2102
7440-22-4	Silver	10.0	U	12/24/2016	2102
7440-23-5	Sodium	288000		12/24/2016	2102
7440-28-0	Thallium	25.0	U	12/24/2016	2102
7440-62-2	Vanadium	50.0	U	12/24/2016	2102
7440-66-6	Zinc	60.0	U	12/24/2016	2102
Hardness	Hardness (total)	181		12/24/2016	2102

NOTE: Hardness (total) is reported in  $\text{mg/L}$ Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

RW-12D

Lab Name: Chemtech Consulting Group Contract: EPW14030

Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D

Matrix: WATER Lab Sample ID: H6071-04

% Solids: \_\_\_\_\_ Date Received: 12/14/2016

Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$ 

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/24/2016	2106
7440-36-0	Antimony	60.0	U	12/24/2016	2106
7440-38-2	Arsenic	5.4	J	12/24/2016	2106
7440-39-3	Barium	71.9	J	12/24/2016	2106
7440-41-7	Beryllium	5.0	U	12/24/2016	2106
7440-43-9	Cadmium	5.0	U	12/24/2016	2106
7440-70-2	Calcium	71700		12/24/2016	2106
7440-47-3	Chromium	1.7	J	12/24/2016	2106
7440-48-4	Cobalt	50.0	U	12/24/2016	2106
7440-50-8	Copper	25.0	U	12/24/2016	2106
7439-89-6	Iron	16.6	J	12/24/2016	2106
7439-92-1	Lead	10.0	U	12/24/2016	2106
7439-95-4	Magnesium	22900		12/24/2016	2106
7439-96-5	Manganese	14.1	J	12/24/2016	2106
7440-02-0	Nickel	40.0	U	12/24/2016	2106
7440-09-7	Potassium	3720	J	12/24/2016	2106
7782-49-2	Selenium	35.0	U	12/24/2016	2106
7440-22-4	Silver	10.0	U	12/24/2016	2106
7440-23-5	Sodium	132000		12/24/2016	2106
7440-28-0	Thallium	25.0	U	12/24/2016	2106
7440-62-2	Vanadium	50.0	U	12/24/2016	2106
7440-66-6	Zinc	60.0	U	12/24/2016	2106
Hardness	Hardness (total)	273		12/24/2016	2106

NOTE: Hardness (total) is reported in  $\text{mg/L}$ 

Comments:

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030 5  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
 Matrix: WATER Lab Sample ID: H6071-05  
 % Solids: \_\_\_\_\_ Date Received: 12/14/2016  
 Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/24/2016	2110
7440-36-0	Antimony	60.0	U	12/24/2016	2110
7440-38-2	Arsenic	4.3	J	12/24/2016	2110
7440-39-3	Barium	63.1	J	12/24/2016	2110
7440-41-7	Beryllium	5.0	U	12/24/2016	2110
7440-43-9	Cadmium	5.0	U	12/24/2016	2110
7440-70-2	Calcium	75400		12/24/2016	2110
7440-47-3	Chromium	10.0	U	12/24/2016	2110
7440-48-4	Cobalt	50.0	U	12/24/2016	2110
7440-50-8	Copper	25.0	U	12/24/2016	2110
7439-89-6	Iron	67.6	J	12/24/2016	2110
7439-92-1	Lead	10.0	U	12/24/2016	2110
7439-95-4	Magnesium	40900		12/24/2016	2110
7439-96-5	Manganese	58.7		12/24/2016	2110
7440-02-0	Nickel	8.1	J	12/24/2016	2110
7440-09-7	Potassium	80000		12/24/2016	2110
7782-49-2	Selenium	35.0	U	12/24/2016	2110
7440-22-4	Silver	10.0	U	12/24/2016	2110
7440-23-5	Sodium	135000		12/24/2016	2110
7440-28-0	Thallium	25.0	U	12/24/2016	2110
7440-62-2	Vanadium	50.0	U	12/24/2016	2110
7440-66-6	Zinc	60.0	U	12/24/2016	2110
Hardness	Hardness (total)	357		12/24/2016	2110

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments:

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FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

PK-10D

Lab Name: Chemtech Consulting Group Contract: EPW14030 7D

Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D

Matrix: WATER Lab Sample ID: H6071-07

% Solids: \_\_\_\_\_ Date Received: 12/14/2016

Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/24/2016	2122
7440-36-0	Antimony	60.0	U	12/24/2016	2122
7440-38-2	Arsenic	4.9	J	12/24/2016	2122
7440-39-3	Barium	39.7	J	12/24/2016	2122
7440-41-7	Beryllium	5.0	U	12/24/2016	2122
7440-43-9	Cadmium	5.0	U	12/24/2016	2122
7440-70-2	Calcium	27000		12/24/2016	2122
7440-47-3	Chromium	1.8	J	12/24/2016	2122
7440-48-4	Cobalt	50.0	U	12/24/2016	2122
7440-50-8	Copper	25.0	U	12/24/2016	2122
7439-89-6	Iron	15.8	J	12/24/2016	2122
7439-92-1	Lead	10.0	U	12/24/2016	2122
7439-95-4	Magnesium	8450		12/24/2016	2122
7439-96-5	Manganese	18.3		12/24/2016	2122
7440-02-0	Nickel	15.3	J	12/24/2016	2122
7440-09-7	Potassium	5000	U	12/24/2016	2122
7782-49-2	Selenium	35.0	U	12/24/2016	2122
7440-22-4	Silver	10.0	U	12/24/2016	2122
7440-23-5	Sodium	51300		12/24/2016	2122
7440-28-0	Thallium	25.0	U	12/24/2016	2122
7440-62-2	Vanadium	50.0	U	12/24/2016	2122
7440-66-6	Zinc	60.0	U	12/24/2016	2122

NOTE: Hardness (total) is reported in mg/L

Comments: \_\_\_\_\_



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INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030 80  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
 Matrix: WATER Lab Sample ID: H6071-08  
 % Solids: \_\_\_\_\_ Date Received: 12/14/2016  
 Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/24/2016	2126
7440-36-0	Antimony	60.0	U	12/24/2016	2126
7440-38-2	Arsenic	10.0	U	12/24/2016	2126
7440-39-3	Barium	15.8	J	12/24/2016	2126
7440-41-7	Beryllium	5.0	U	12/24/2016	2126
7440-43-9	Cadmium	5.0	U	12/24/2016	2126
7440-70-2	Calcium	11600		12/24/2016	2126
7440-47-3	Chromium	4.1	J	12/24/2016	2126
7440-48-4	Cobalt	50.0	U	12/24/2016	2126
7440-50-8	Copper	25.0	U	12/24/2016	2126
7439-89-6	Iron	76.3	J	12/24/2016	2126
7439-92-1	Lead	10.0	U	12/24/2016	2126
7439-95-4	Magnesium	2460	J	12/24/2016	2126
7439-96-5	Manganese	13.4	J	12/24/2016	2126
7440-02-0	Nickel	18.6	J	12/24/2016	2126
7440-09-7	Potassium	5000	U	12/24/2016	2126
7782-49-2	Selenium	35.0	U	12/24/2016	2126
7440-22-4	Silver	10.0	U	12/24/2016	2126
7440-23-5	Sodium	5490		12/24/2016	2126
7440-28-0	Thallium	25.0	U	12/24/2016	2126
7440-62-2	Vanadium	50.0	U	12/24/2016	2126
7440-66-6	Zinc	45.1	J	12/24/2016	2126

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments:

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FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030 9D  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
 Matrix: WATER Lab Sample ID: H6071-09  
 % Solids: \_\_\_\_\_ Date Received: 12/14/2016  
 Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/24/2016	2130
7440-36-0	Antimony	60.0	U	12/24/2016	2130
7440-38-2	Arsenic	10.0	U	12/24/2016	2130
7440-39-3	Barium	61.3	J	12/24/2016	2130
7440-41-7	Beryllium	5.0	U	12/24/2016	2130
7440-43-9	Cadmium	5.0	U	12/24/2016	2130
7440-70-2	Calcium	49800		12/24/2016	2130
7440-47-3	Chromium	11.4		12/24/2016	2130
7440-48-4	Cobalt	60.1		12/24/2016	2130
7440-50-8	Copper	25.0	U	12/24/2016	2130
7439-89-6	Iron	70.8	J	12/24/2016	2130
7439-92-1	Lead	10.0	U	12/24/2016	2130
7439-95-4	Magnesium	14400		12/24/2016	2130
7439-96-5	Manganese	1840		12/24/2016	2130
7440-02-0	Nickel	34.4	J	12/24/2016	2130
7440-09-7	Potassium	17200		12/24/2016	2130
7782-49-2	Selenium	35.0	U	12/24/2016	2130
7440-22-4	Silver	10.0	U	12/24/2016	2130
7440-23-5	Sodium	291000		12/24/2016	2130
7440-28-0	Thallium	25.0	U	12/24/2016	2130
7440-62-2	Vanadium	50.0	U	12/24/2016	2130
7440-66-6	Zinc	60.0	U	12/24/2016	2130

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
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FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030 10D  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
 Matrix: WATER Lab Sample ID: H6071-10  
 % Solids: \_\_\_\_\_ Date Received: 12/14/2016  
 Analytical Method: ICP-AES

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/24/2016	2134
7440-36-0	Antimony	60.0	U	12/24/2016	2134
7440-38-2	Arsenic	10.0	U	12/24/2016	2134
7440-39-3	Barium	71.4	J	12/24/2016	2134
7440-41-7	Beryllium	5.0	U	12/24/2016	2134
7440-43-9	Cadmium	5.0	U	12/24/2016	2134
7440-70-2	Calcium	71300		12/24/2016	2134
7440-47-3	Chromium	10.0	U	12/24/2016	2134
7440-48-4	Cobalt	50.0	U	12/24/2016	2134
7440-50-8	Copper	25.0	U	12/24/2016	2134
7439-89-6	Iron	100	U	12/24/2016	2134
7439-92-1	Lead	10.0	U	12/24/2016	2134
7439-95-4	Magnesium	22900		12/24/2016	2134
7439-96-5	Manganese	13.7	J	12/24/2016	2134
7440-02-0	Nickel	40.0	U	12/24/2016	2134
7440-09-7	Potassium	3710	J	12/24/2016	2134
7782-49-2	Selenium	35.0	U	12/24/2016	2134
7440-22-4	Silver	10.0	U	12/24/2016	2134
7440-23-5	Sodium	131000		12/24/2016	2134
7440-28-0	Thallium	25.0	U	12/24/2016	2134
7440-62-2	Vanadium	50.0	U	12/24/2016	2134
7440-66-6	Zinc	60.0	U	12/24/2016	2134

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030 110  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
 Matrix: WATER Lab Sample ID: H6071-11  
 % Solids: \_\_\_\_\_ Date Received: 12/14/2016  
 Analytical Method: ICP-AES  
 Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	12/24/2016	2138
7440-36-0	Antimony	60.0	U	12/24/2016	2138
7440-38-2	Arsenic	10.0	U	12/24/2016	2138
7440-39-3	Barium	64.9	J	12/24/2016	2138
7440-41-7	Beryllium	5.0	U	12/24/2016	2138
7440-43-9	Cadmium	5.0	U	12/24/2016	2138
7440-70-2	Calcium	76900		12/24/2016	2138
7440-47-3	Chromium	10.0	U	12/24/2016	2138
7440-48-4	Cobalt	50.0	U	12/24/2016	2138
7440-50-8	Copper	3.7	J	12/24/2016	2138
7439-89-6	Iron	65.9	J	12/24/2016	2138
7439-92-1	Lead	10.0	U	12/24/2016	2138
7439-95-4	Magnesium	41800		12/24/2016	2138
7439-96-5	Manganese	60.1		12/24/2016	2138
7440-02-0	Nickel	12.1	J	12/24/2016	2138
7440-09-7	Potassium	82000		12/24/2016	2138
7782-49-2	Selenium	35.0	U	12/24/2016	2138
7440-22-4	Silver	10.0	U	12/24/2016	2138
7440-23-5	Sodium	139000		12/24/2016	2138
7440-28-0	Thallium	25.0	U	12/24/2016	2138
7440-62-2	Vanadium	50.0	U	12/24/2016	2138
7440-66-6	Zinc	60.0	U	12/24/2016	2138

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments:

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EPA SAMPLE NO.

PK-10D

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030

Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D

Matrix: WATER Lab Sample ID: H6071-01

% Solids: \_\_\_\_\_ Date Received: 12/14/2016

Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.92		12/16/2016	1512

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
PK-10S

2T

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
Matrix: WATER Lab Sample ID: H6071-02  
% Solids: \_\_\_\_\_ Date Received: 12/14/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/16/2016	1523

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
PK-10I

3T

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
Matrix: WATER Lab Sample ID: H6071-03  
% Solids: \_\_\_\_\_ Date Received: 12/14/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.33		12/16/2016	1525

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

4T

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
 Matrix: WATER Lab Sample ID: H6071-04  
 % Solids: \_\_\_\_\_ Date Received: 12/14/2016  
 Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.031	J	12/16/2016	1527

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
RW-12I

51

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
Matrix: WATER Lab Sample ID: H6071-05  
% Solids: \_\_\_\_\_ Date Received: 12/14/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.028	J	12/16/2016	1529

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
PK-10D

7D

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
Matrix: WATER Lab Sample ID: H6071-07  
% Solids: \_\_\_\_\_ Date Received: 12/14/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.87		12/16/2016	1531

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PK-10S

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

8D

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
 Matrix: WATER Lab Sample ID: H6071-08  
 % Solids: \_\_\_\_\_ Date Received: 12/14/2016  
 Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	12/16/2016	1533

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.  
PK-10I

911

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
Matrix: WATER Lab Sample ID: H6071-09  
% Solids: \_\_\_\_\_ Date Received: 12/14/2016  
Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.26		12/16/2016	1535

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

EPA SAMPLE NO.

RW-12D

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

1017

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
 Matrix: WATER Lab Sample ID: H6071-10  
 % Solids: \_\_\_\_\_ Date Received: 12/14/2016  
 Analytical Method: CVAA

Concentration Units (µg/L, mg/L, mg/kg dry weight or µg) : ug/L

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.026	J	12/16/2016	1537

NOTE: Hardness (total) is reported in mg/L

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

RW-12I

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030

Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D

Matrix: WATER Lab Sample ID: H6071-11

% Solids: \_\_\_\_\_ Date Received: 12/14/2016

Analytical Method: CVAA

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$ 

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.041	J	12/16/2016	1540

NOTE: Hardness (total) is reported in  $\text{mg/L}$ 

Comments: \_\_\_\_\_





EPA SAMPLE NO.

PK-10D

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030  
Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
Matrix: WATER Lab Sample ID: H6071-01  
% Solids: \_\_\_\_\_ Date Received: 12/14/2016  
Analytical Method: Spectrophotometry

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0	U	12/15/2016	1516

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PK-10S

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030

Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D

Matrix: WATER Lab Sample ID: H6071-02

% Solids: \_\_\_\_\_ Date Received: 12/14/2016

Analytical Method: Spectrophotometry

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0	U	12/15/2016	1517

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PK-10I

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

Lab Name: Chemtech Consulting Group Contract: EPW14030

Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D

Matrix: WATER Lab Sample ID: H6071-03

% Solids: \_\_\_\_\_ Date Received: 12/14/2016

Analytical Method: Spectrophotometry

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0	U	12/15/2016	1517

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

EPA SAMPLE NO.

RW-12D

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

4

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
 Matrix: WATER Lab Sample ID: H6071-04  
 % Solids: \_\_\_\_\_ Date Received: 12/14/2016  
 Analytical Method: Spectrophotometry  
 Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0	U	12/15/2016	1517

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_  
\_\_\_\_\_

*u 2/14/17*

EPA SAMPLE NO.

RW-12I

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

5

Lab Name: Chemtech Consulting Group Contract: EPW14030  
 Lab Code: CHM Case No.: Syosset Landfi MA No. : \_\_\_\_\_ SDG No.: PK-10D  
 Matrix: WATER Lab Sample ID: H6071-05  
 % Solids: \_\_\_\_\_ Date Received: 12/14/2016  
 Analytical Method: Spectrophotometry

Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight or  $\mu\text{g}$ ) :  $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
57-12-5	Cyanide	10.0	U	12/15/2016	1520

NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments: \_\_\_\_\_



**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16 09:30
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	PK-10D	SDG No.:	H6071
Lab Sample ID:	H6071-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	20.8		1	0.4	1	2	mg/L		12/19/16 13:52	SM2320 B
Ammonia as N	0.067	J	1	0.034	0.05	0.1	mg/L	12/19/16 10:35	12/20/16 09:54	SM 4500-NH3 B plus G
Bromide	1.32		1	0.066	0.25	0.5	mg/L		12/15/16 09:05	300
Chloride	119 <del>164</del>	OR	20	1.5	0.075	0.075	mg/L		12/15/16 09:05	300
Nitrate	4.06		1	0.027	0.057	0.113	mg/L		12/15/16 09:05	300
Sulfate	20.4 J		1	0.132	0.375	0.75	mg/L		12/15/16 09:05	300
BOD5	2	U	1	2	2	2	mg/L		12/15/16 09:10	SM5210 B
COD	5	U	1	2.43	2.5	5	mg/L		12/19/16 15:17	SM5220 D
Color	5	U	1	5	5	5	cu		12/15/16 09:05	SM2120 B
Phenolics	0.05	U	1	0.01	0.025	0.05	mg/L	12/16/16 08:30	12/16/16 14:42	9065
TDS	307		1	0.031	5	10	mg/L		12/15/16 15:00	SM2540C
TKN	0.196	J	1	0.096	0.25	0.5	mg/L	12/19/16 09:38	12/20/16 13:34	SM4500-N Org B or C plus NH3 G
TOC	1.1 J		1	0.08	0.25	0.5	mg/L		12/15/16 10:58	SM5310B

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

**Report of Analysis**

*IDL*

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16 09:30
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	PK-10DDL	SDG No.:	H6071
Lab Sample ID:	H6071-01DL	Matrix:	WATER
		% Solid:	0

*Use original results*

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Chloride	119	D	20	1.5	1.5	3	mg/L		12/15/16 13:26	300

Comments:

- U = Not Detected
- LOQ = Limit of Quantitation
- MDL = Method Detection Limit
- LOD = Limit of Detection
- D = Dilution
- Q = indicates LCS control criteria did not meet requirements
- H = Sample Analysis Out Of Hold Time
- J = Estimated Value
- B = Analyte Found in Associated Method Blank
- \* = indicates the duplicate analysis is not within control limits.
- E = Indicates the reported value is estimated because of the presence of interference.
- OR = Over Range
- N = Spiked sample recovery not within control limits

*mzllcl7*



**Report of Analysis**

2

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16 10:00
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	PK-10S	SDG No.:	H6071
Lab Sample ID:	H6071-02	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	9.36		1	0.4	1	2	mg/L		12/19/16 14:23	SM2320 B
Ammonia as N	0.09	J	1	0.034	0.05	0.1	mg/L	12/19/16 10:35	12/20/16 09:54	SM 4500-NH3 B plus G
Bromide	0.912		1	0.066	0.25	0.5	mg/L		12/15/16 09:34	300
Chloride	11.8		1	0.075	0.075	0.15	mg/L		12/15/16 09:34	300
Nitrate	2.9		1	0.027	0.057	0.113	mg/L		12/15/16 09:34	300
Sulfate	18.2	J	1	0.132	0.375	0.75	mg/L		12/15/16 09:34	300
BOD5	2	U	1	2	2	2	mg/L		12/15/16 09:10	SM5210 B
COD	5	U	1	2.43	2.5	5	mg/L		12/19/16 15:17	SM5220 D
Color	5	U	1	5	5	5	cu		12/15/16 09:15	SM2120 B
Phenolics	0.011	J	1	0.01	0.025	0.05	mg/L	12/16/16 08:30	12/16/16 14:43	9065
TDS	86		1	0.031	5	10	mg/L		12/15/16 15:00	SM2540C
TKN	0.24	J	1	0.096	0.25	0.5	mg/L	12/19/16 09:38	12/20/16 13:34	SM4500-N Org B or C plus NH3 G
TOC	0.522	J	1	0.08	0.25	0.5	mg/L		12/15/16 11:14	SM5310B

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

*Handwritten signature*

**Report of Analysis**

3

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16 12:00
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	PK-10I	SDG No.:	H6071
Lab Sample ID:	H6071-03	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	122		1	0.4	1	2	mg/L		12/19/16 14:02	SM2320 B
Ammonia as N	5.21 <del>5.12</del>	OR 10+		0.34	0.05	0.5	mg/L	12/19/16 10:35	12/20/16 09:54	SM 4500-NH3 B plus G
Bromide	2.55		1	0.066	0.25	0.5	mg/L		12/15/16 11:01	300
Chloride	556 <del>830</del>	OR 100+		0.075	0.075	0.15	mg/L		12/15/16 11:01	300
Nitrate	0.113	U	1	0.027	0.057	0.113	mg/L		12/15/16 11:01	300
Sulfate	35.9 J		1	0.132	0.375	0.75	mg/L		12/15/16 11:01	300
BOD5	2		1	2	2	2	mg/L		12/15/16 09:10	SM5210 B
COD	9.76		1	2.43	2.5	5	mg/L		12/19/16 15:17	SM5220 D
Color	5	U	1	5	5	5	cu		12/15/16 09:20	SM2120 B
Phenolics	0.05	U	1	0.01	0.025	0.05	mg/L	12/16/16 08:30	12/16/16 14:50	9065
TDS	1175		1	0.031	5	10	mg/L		12/15/16 15:00	SM2540C
TKN	4.82		1	0.096	0.25	0.5	mg/L	12/19/16 09:38	12/20/16 13:34	SM4500-N Org B or C plus NH3 G
TOC	2.41 J		1	0.08	0.25	0.5	mg/L		12/15/16 11:47	SM5310B

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

**Report of Analysis**

3DL

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16 12:00
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	PK-10IDL	SDG No.:	H6071
Lab Sample ID:	H6071-03DL	Matrix:	WATER
		% Solid:	0

Use original results

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ/CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	5.21	D	10	0.34	0.5	1	mg/L	12/19/16 10:35	12/20/16 10:39	SM 4500-NH3 B plus G
Chloride	556	D	100	7.5	7.5	15	mg/L		12/15/16 14:53	300

Comments:

U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 D = Dilution  
 Q = indicates LCS control criteria did not meet requirements  
 H = Sample Analysis Out Of Hold Time

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 \* = indicates the duplicate analysis is not within control limits.  
 E = Indicates the reported value is estimated because of the presence of interference.  
 OR = Over Range  
 N = Spiked sample recovery not within control limits

**Report of Analysis**

4

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16 14:00
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	RW-12D	SDG No.:	H6071
Lab Sample ID:	H6071-04	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	101		1	0.4	1	2	mg/L		12/19/16 14:10	SM2320 B
Ammonia as N	5.75 <del>6.16</del>	OR 10	1	0.34	0.05	0.5	mg/L	12/19/16 10:35	12/20/16 10:01	SM 4500-NH3 B plus G
Bromide	2.35		1	0.066	0.25	0.5	mg/L		12/15/16 11:30	300
Chloride	210 <del>284</del>	OR 20	1	0.075	0.075	0.15	mg/L		12/15/16 11:30	300
Nitrate	9.88		1	0.027	0.057	0.113	mg/L		12/15/16 11:30	300
Sulfate	199 <del>233</del> J	OR 20	1	0.132	0.375	0.75	mg/L		12/15/16 11:30	300
BOD5	2.01		1	2	2	2	mg/L		12/15/16 09:10	SM5210 B
COD	10.8		1	2.43	2.5	5	mg/L		12/19/16 15:18	SM5220 D
Color	5	U	1	5	5	5	cu		12/15/16 09:25	SM2120 B
Phenolics	0.05	U	1	0.01	0.025	0.05	mg/L	12/16/16 08:30	12/16/16 14:50	9065
TDS	805		1	0.031	5	10	mg/L		12/15/16 15:00	SM2540C
TKN	5.66		1	0.096	0.25	0.5	mg/L	12/19/16 09:38	12/20/16 13:41	SM4500-N Org B or C plus NH3 G
TOC	4.42 J		1	0.08	0.25	0.5	mg/L		12/15/16 12:05	SM5310B

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

*RW 12/14/17*

**Report of Analysis**

4DL

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16 14:00
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	RW-12DDL	SDG No.:	H6071
Lab Sample ID:	H6071-04DL	Matrix:	WATER
		% Solid:	0

Use original results

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	5.75	D	10	0.34	0.5	1	mg/L	12/19/16 10:35	12/20/16 10:39	SM 4500-NH3 B plus G
Chloride	210	D	20	1.5	1.5	3	mg/L		12/15/16 15:22	300
Sulfate	199	D	20	2.64	7.5	15	mg/L		12/15/16 15:22	300

Comments:

- U = Not Detected
- LOQ = Limit of Quantitation
- MDL = Method Detection Limit
- LOD = Limit of Detection
- D = Dilution
- Q = indicates LCS control criteria did not meet requirements
- H = Sample Analysis Out Of Hold Time

- J = Estimated Value
- B = Analyte Found in Associated Method Blank
- \* = indicates the duplicate analysis is not within control limits.
- E = Indicates the reported value is estimated because of the presence of interference.
- OR = Over Range
- N = Spiked sample recovery not within control limits

**Report of Analysis**

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16 16:00
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	RW-12I	SDG No.:	H6071
Lab Sample ID:	H6071-05	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Alkalinity	805		1	0.4	1	2	mg/L		12/19/16 14:14	SM2320 B
Ammonia as N	82.5		OR 50+	0.034	0.05	0.1	mg/L	12/19/16 10:35	12/20/16 10:01	SM 4500-NH3 B plus G
Bromide	6.99		1	0.066	0.25	0.5	mg/L		12/15/16 11:59	300
Chloride	147		OR 20+	0.075	0.075	0.15	mg/L		12/15/16 11:59	300
Nitrate	0.113	U	1	0.027	0.057	0.113	mg/L		12/15/16 11:59	300
Sulfate	71 J		1	0.132	0.375	0.75	mg/L		12/15/16 11:59	300
BOD5	2.73		1	2	2	2	mg/L		12/15/16 09:10	SM5210 B
COD	52.8		1	2.43	2.5	5	mg/L		12/19/16 15:18	SM5220 D
Color	5	U	1	5	5	5	cu		12/15/16 09:30	SM2120 B
Phenolics	0.05	U	1	0.01	0.025	0.05	mg/L	12/16/16 08:30	12/16/16 14:50	9065
TDS	974		1	0.031	5	10	mg/L		12/15/16 15:00	SM2540C
TKN	77		OR 10+	0.096	0.25	0.5	mg/L	12/19/16 09:38	12/20/16 13:41	SM4500-N Org B or C plus NH3 G
TOC	19.4 J		1	0.08	0.25	0.5	mg/L		12/15/16 12:23	SM5310B

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

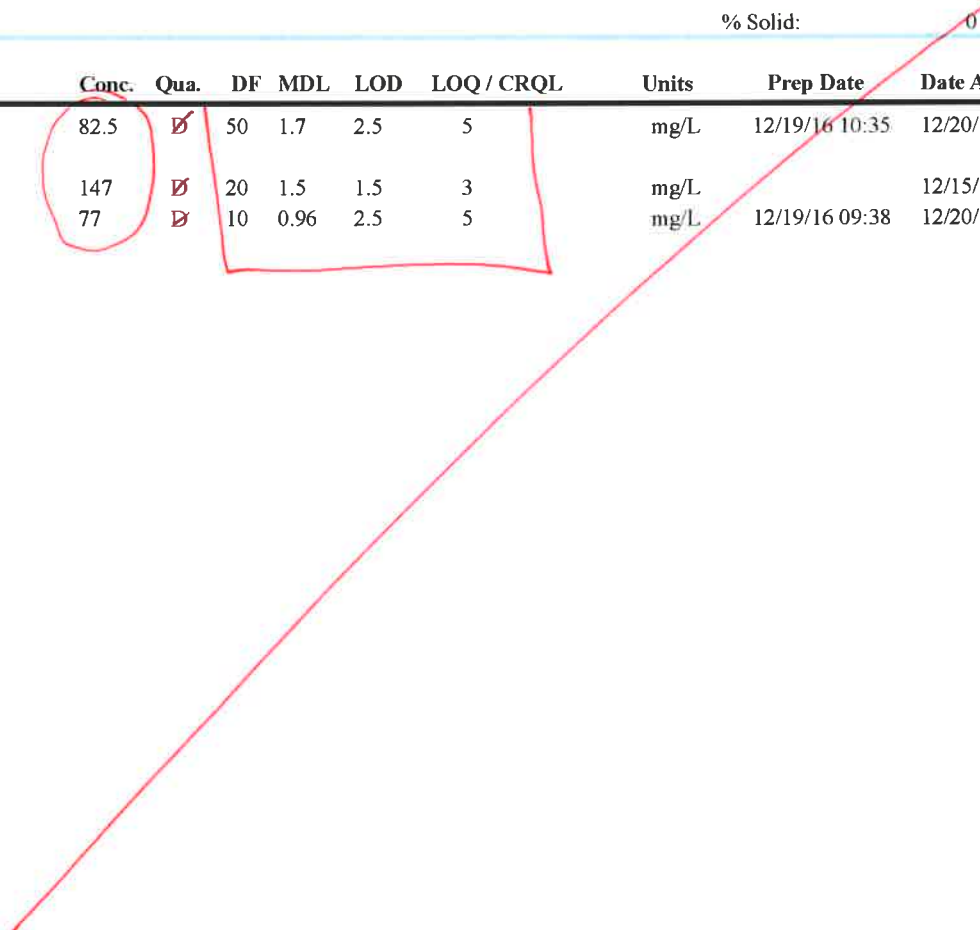
**Report of Analysis**

*5DL*

Client:	Lockwood, Kessler, & Bartlett	Date Collected:	12/13/16 16:00
Project:	Syosset Landfill	Date Received:	12/14/16
Client Sample ID:	RW-12IDL	SDG No.:	H6071
Lab Sample ID:	H6071-05DL	Matrix:	WATER
		% Solid:	0

*Use original results*

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	82.5	✓	50	1.7	2.5	5	mg/L	12/19/16 10:35	12/20/16 11:03	SM 4500-NH3 B plus G
Chloride	147	✓	20	1.5	1.5	3	mg/L		12/15/16 15:51	300
TKN	77	✓	10	0.96	2.5	5	mg/L	12/19/16 09:38	12/20/16 13:41	SM4500-N Org B or C plus NH3 G



Comments:

- U = Not Detected
- LOQ = Limit of Quantitation
- MDL = Method Detection Limit
- LOD = Limit of Detection
- D = Dilution
- Q = indicates LCS control criteria did not meet requirements
- H = Sample Analysis Out Of Hold Time

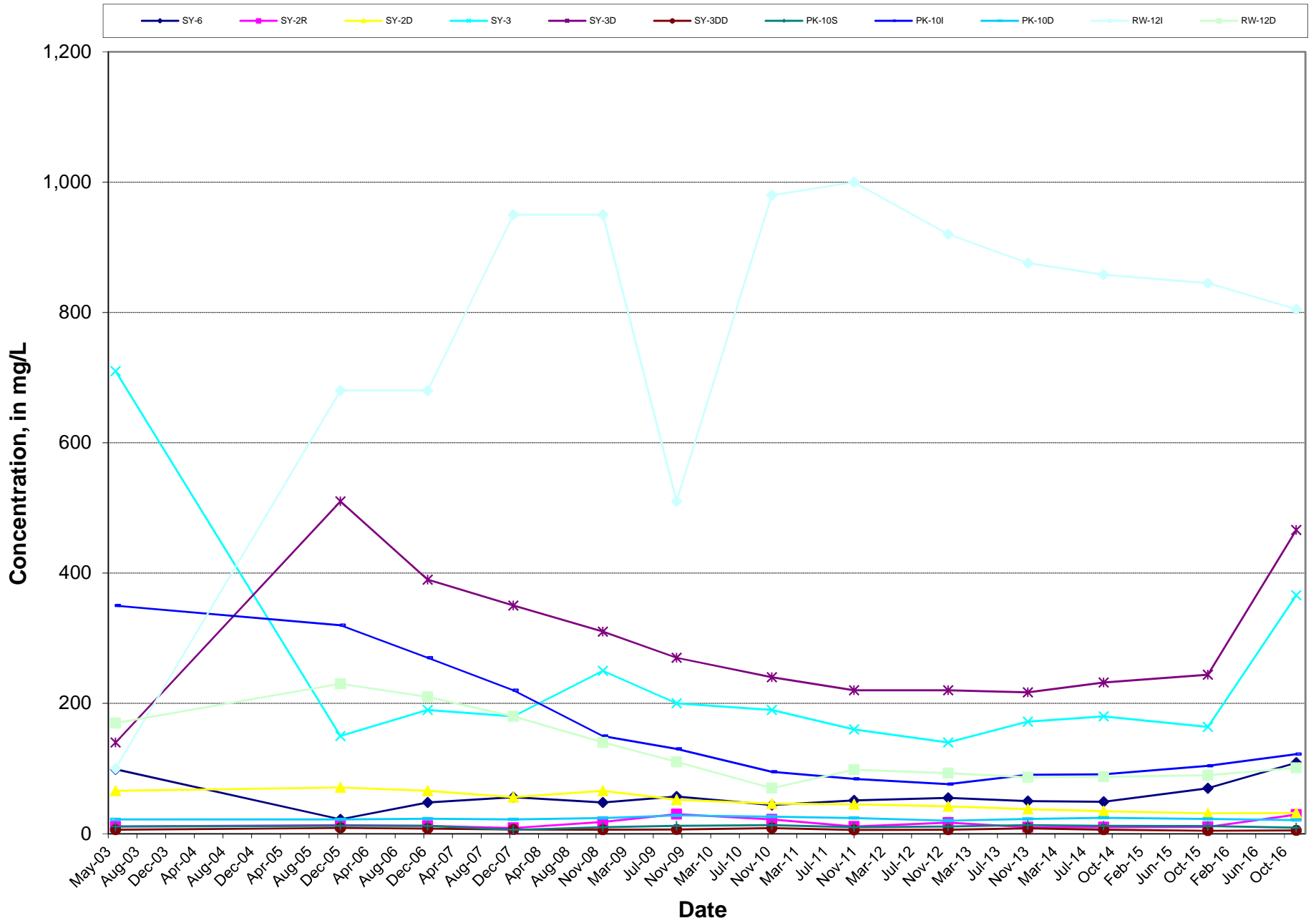
- J = Estimated Value
- B = Analyte Found in Associated Method Blank
- \* = indicates the duplicate analysis is not within control limits.
- E = Indicates the reported value is estimated because of the presence of interference.
- OR = Over Range
- N = Spiked sample recovery not within control limits

## **APPENDIX C**

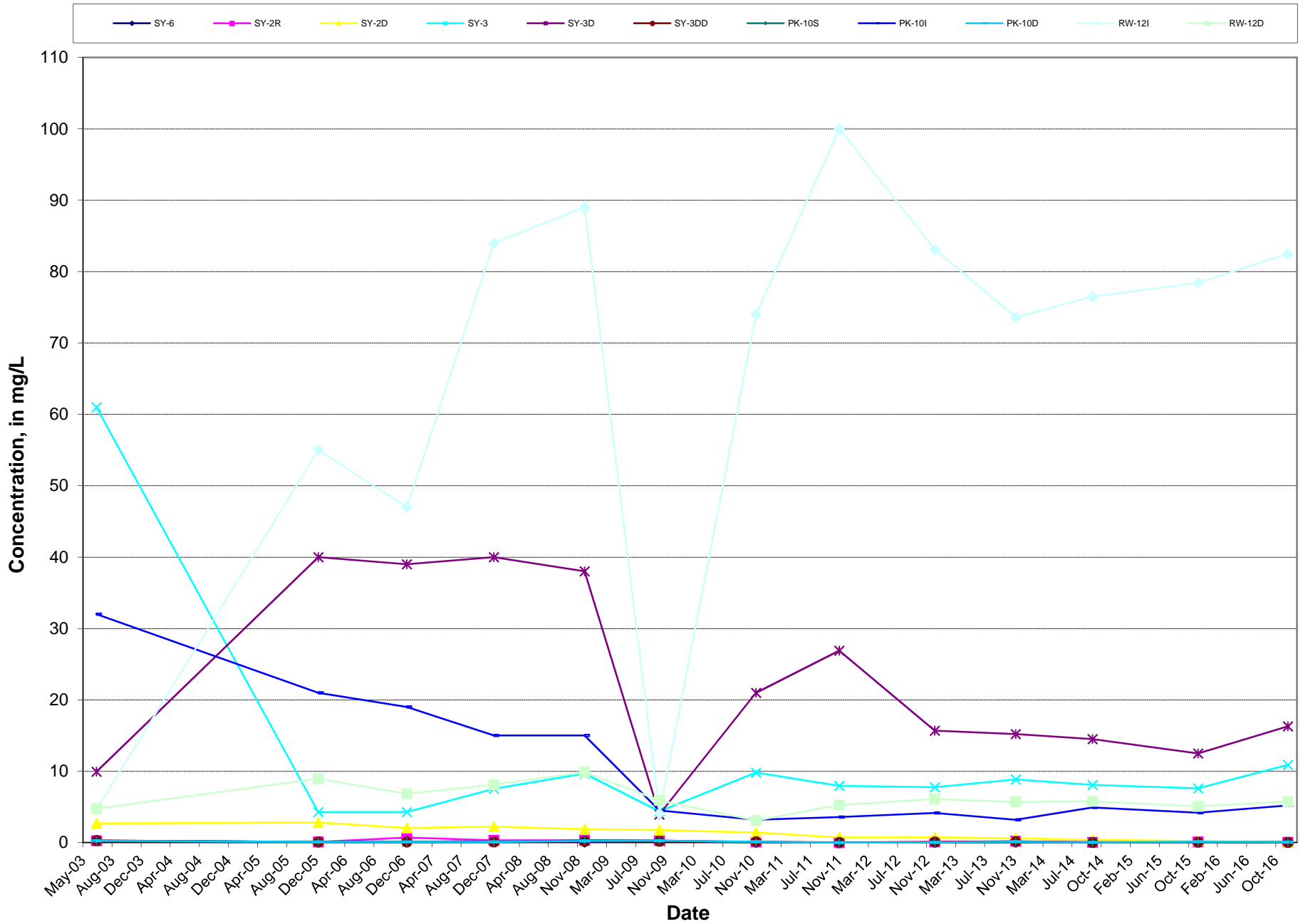
### **Trend Analysis Charts**



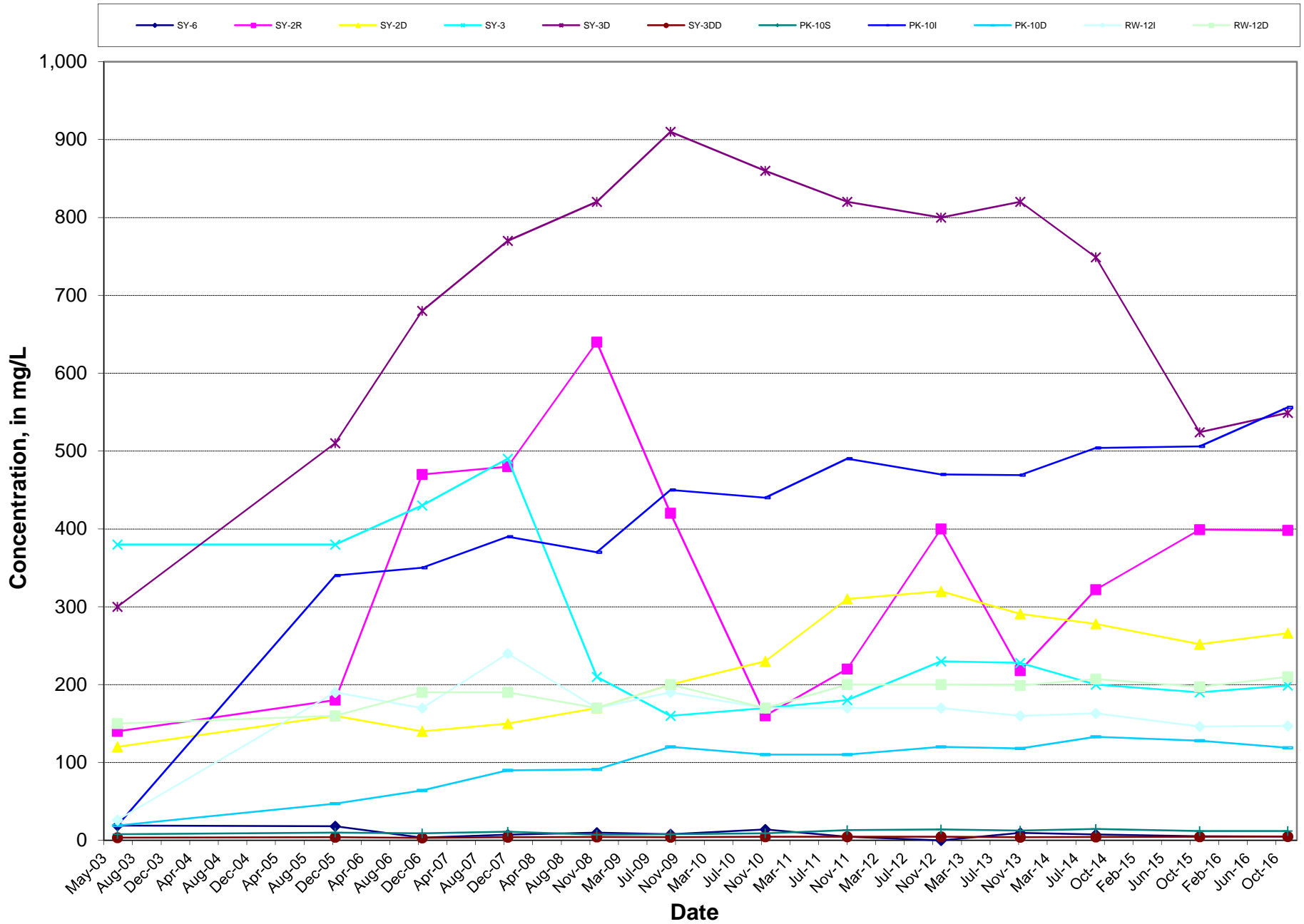
## Post-Closure Alkalinity Concentrations in Syosset Landfill Ground Water-Monitoring Wells



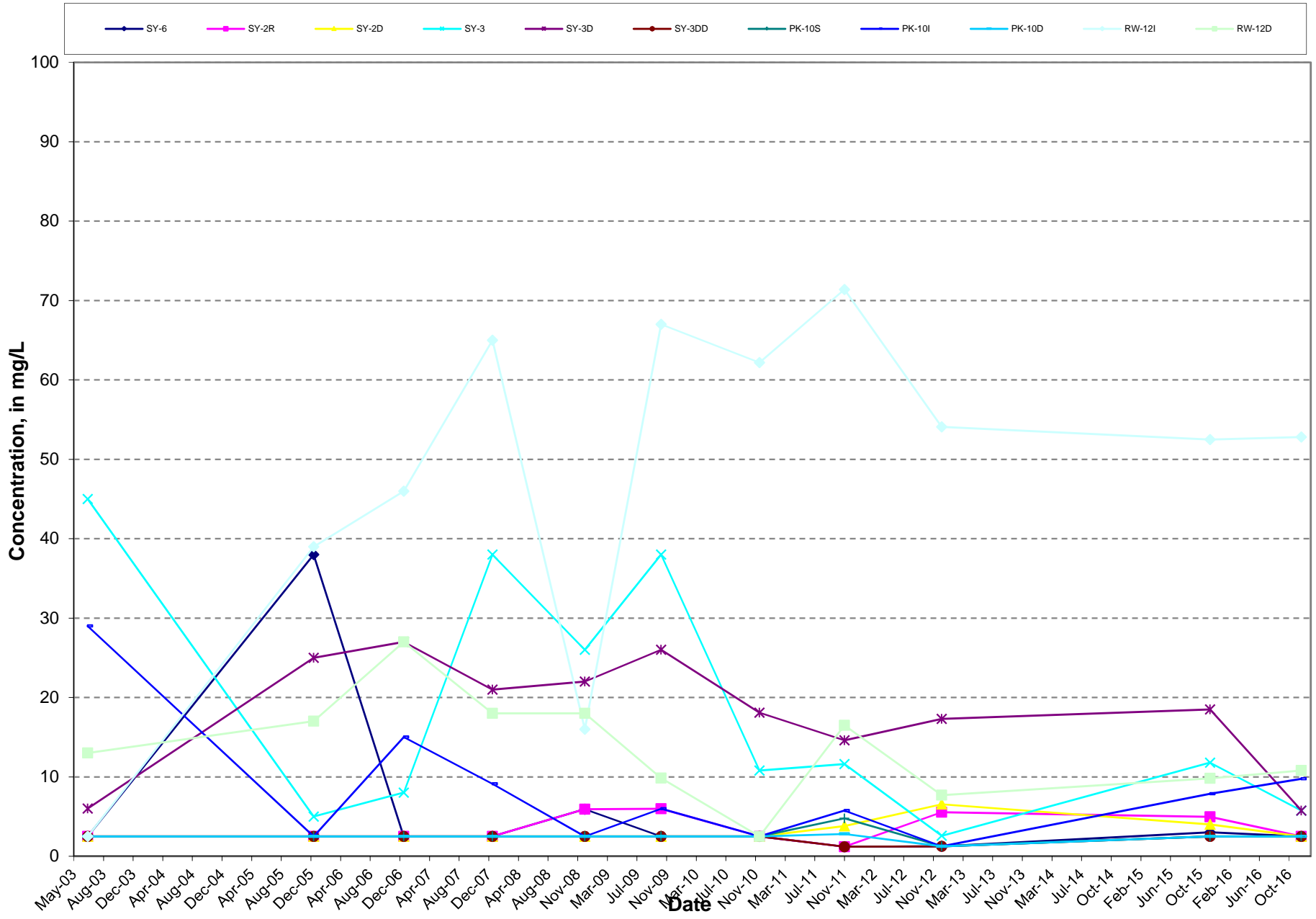
## Post-Closure Ammonia Concentrations in Syosset Landfill Ground Water-Monitoring Wells



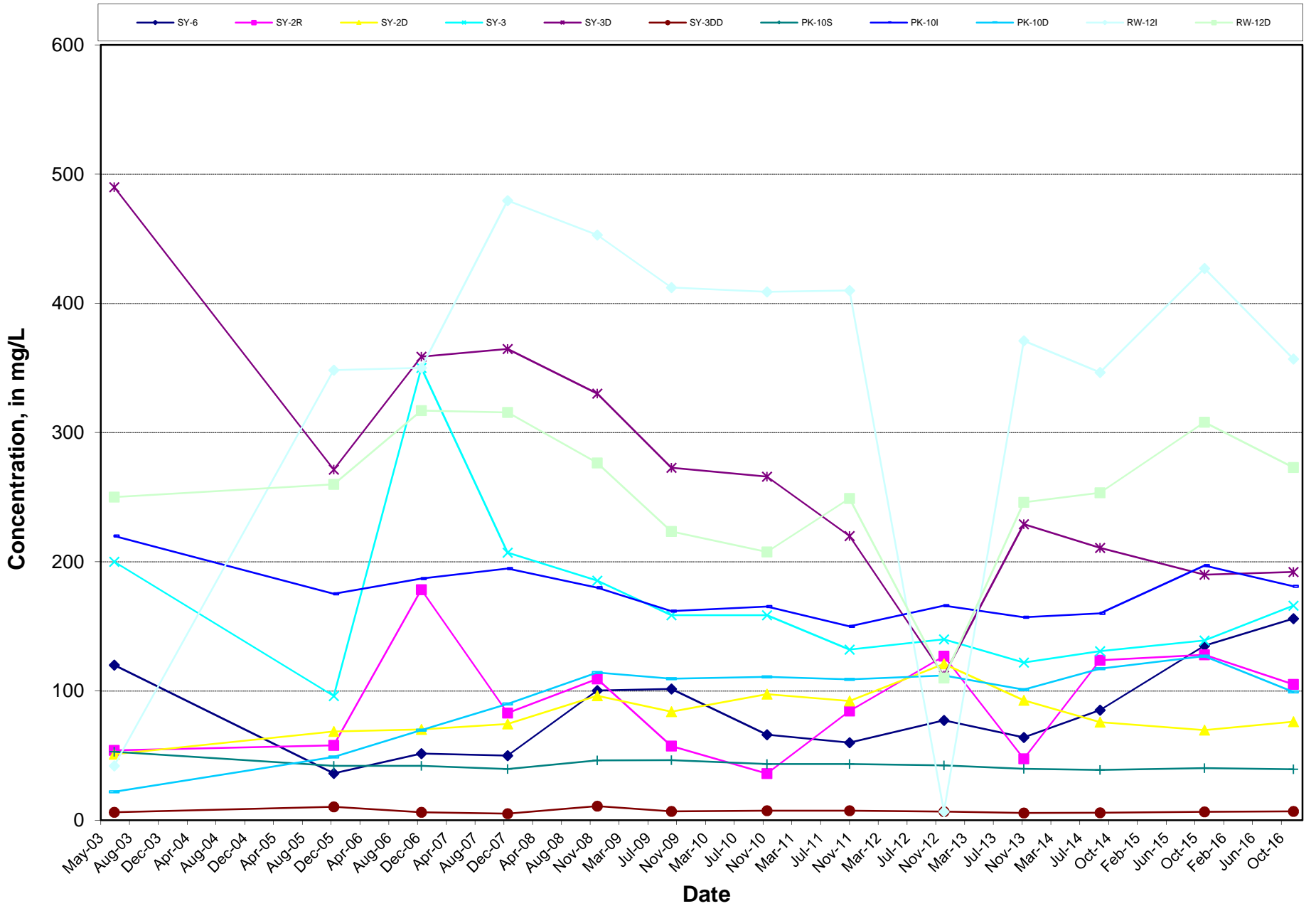
## Post-Closure Chloride Concentrations in Syosset Landfill Ground Water-Monitoring Wells



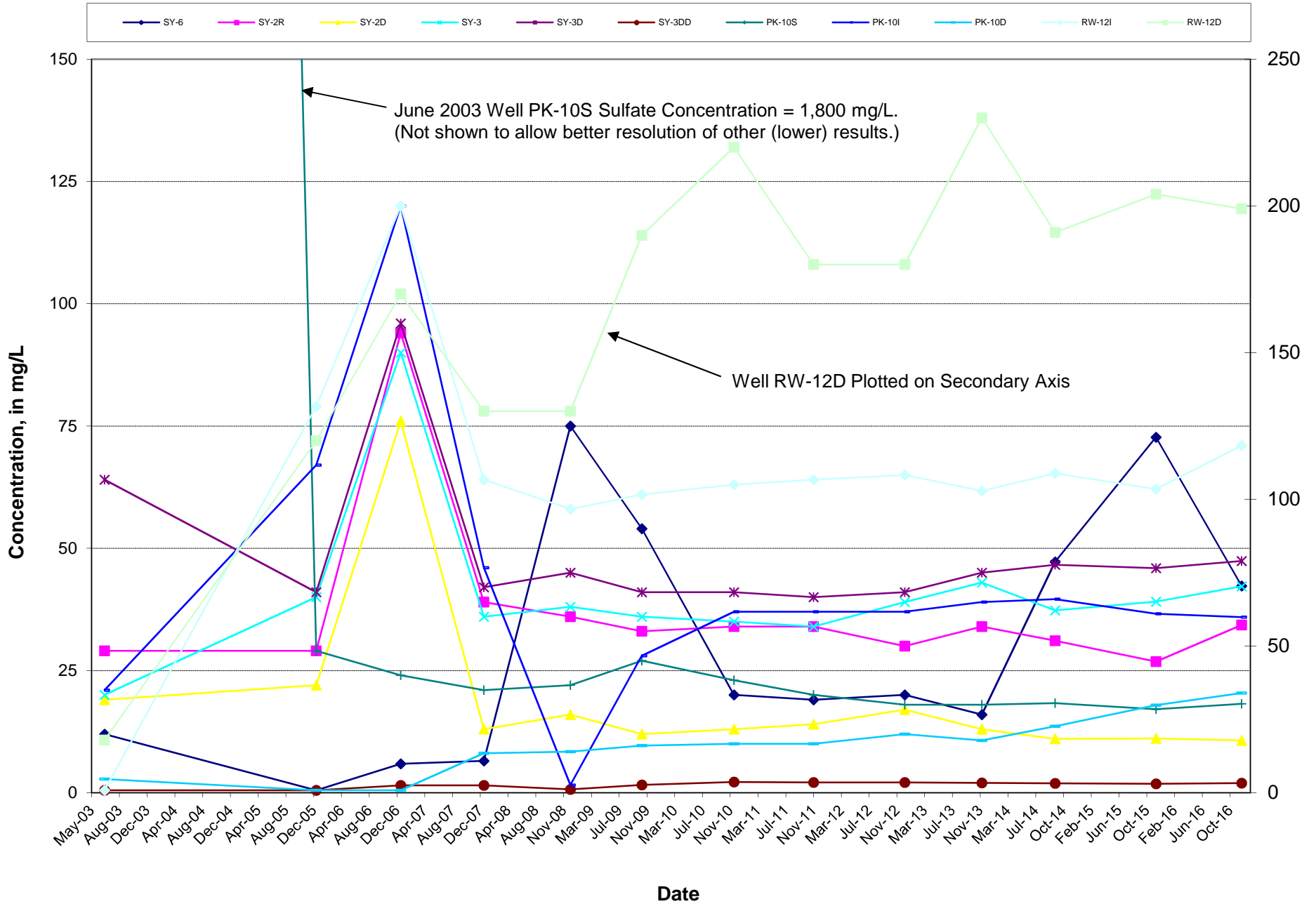
# Post-Closure COD Concentrations in Syosset Landfill Ground Water-Monitoring Wells



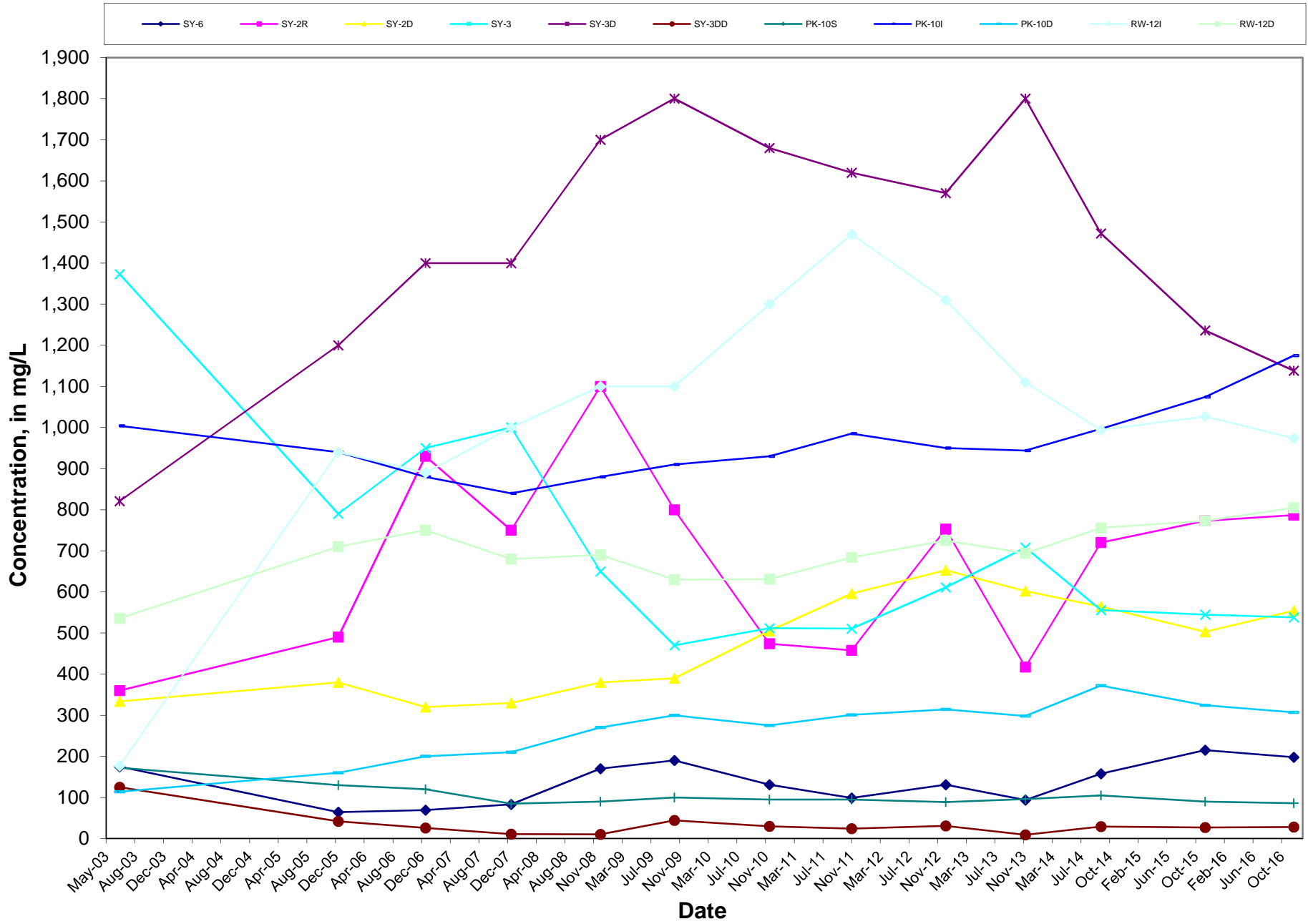
## Post-Closure Hardness Concentrations in Syosset Landfill Ground Water-Monitoring Wells



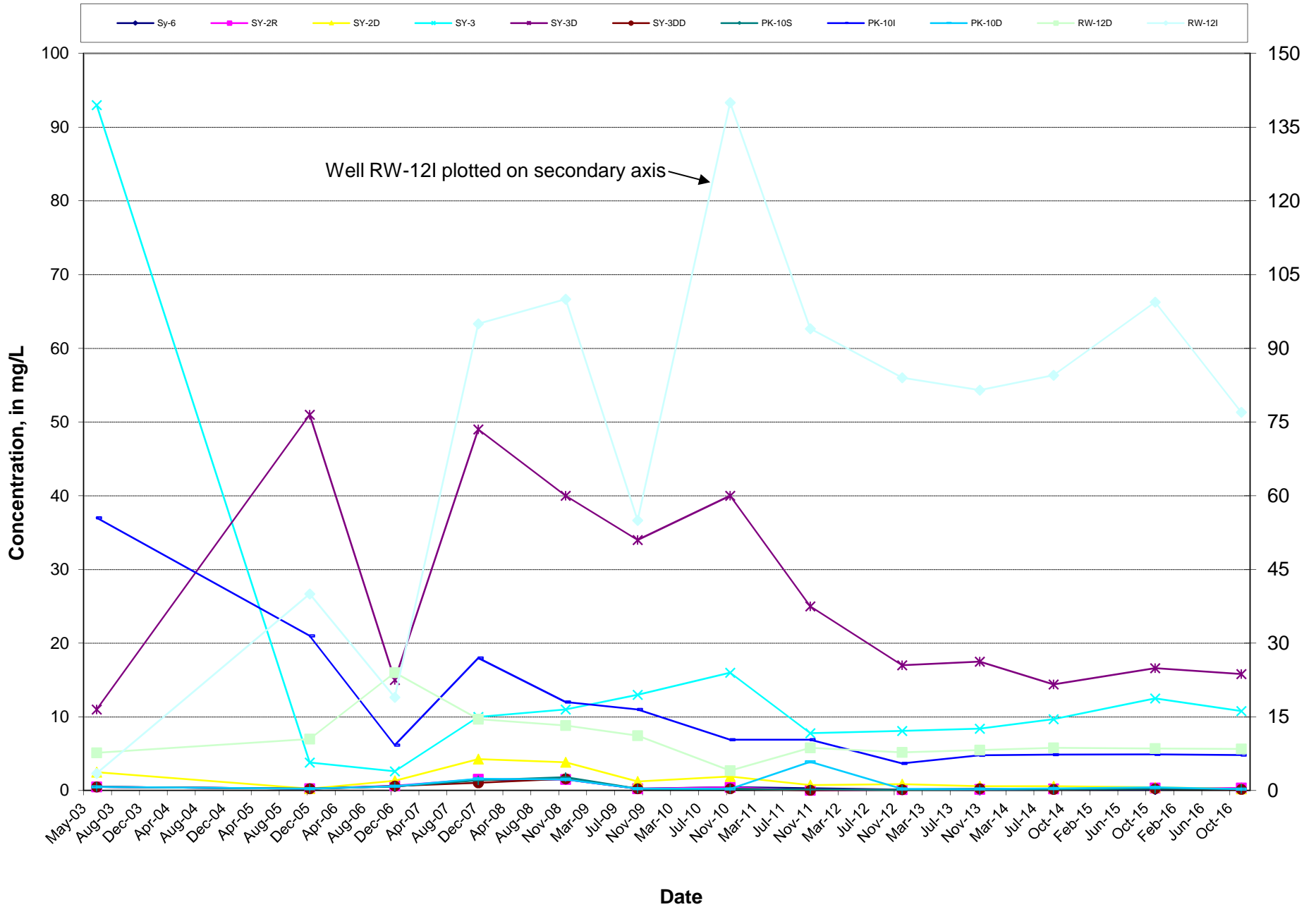
## Post-Closure Sulfate Concentrations in Syosset Landfill Ground Water-Monitoring Wells



## Post-Closure TDS Concentrations in Syosset Landfill Ground Water-Monitoring Wells



# Post-Closure TKN Concentrations in Syosset Landfill Ground Water-Monitoring Wells





## Post-Closure TOC Concentrations in Syosset Landfill Ground Water-Monitoring Wells

